Oil, Paint and Drug Reporter.

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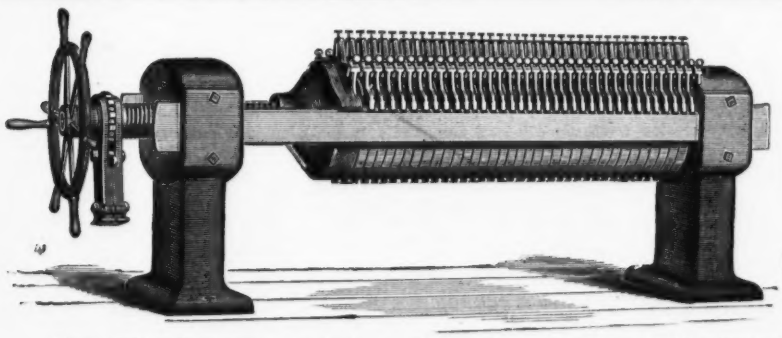

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WEDNESDAY, AUGUST 15, 1888.

Leading Topics of the Week.

Organizing a National Paint Association.
The peppermint oil situation.
Features of the glue market.
The lard question abroad.
British alkali trade.
July petroleum statistics.
Miscellaneous oils scarce.
A new cattle food.
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Awaiting the new crop of sumac.
Wholesale Druggists' Association.
Meeting of Window Glass Manufacturers
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The truth about Pithole.
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WEEKLY REVIEW.

The money market is more active than it was a week ago, due to the increase in speculation and the near approach of the time for moving the crops. There has however been no change in the rates for call loans, as the available funds are ample for all requirements. Call loans are quoted at 1@1½%. Time loans are quoted at 3½@4%. The supply of commercial paper of first class is good and the demand is fair. We quote 60 to 90 days' indorsed bills receivable at 4@4½%, first class four months' commission house names at 4½@5, and good single names—jobbers—having four to six months to run at 5@6½%. The following are the rates of exchange on New York: Savannah, buying par, selling ⅛@¼ premium. Charleston, buying par, selling 3-16@¼ premium. New Orleans commercial, 75c per $1,000 premium, bank $1 premium. St. Louis, par, Chicago, 60c per $1,000 discount. Sterling exchange is heavy and inactive.

Sterling, 60 days, nominal	$4 85½@4 86	
sight, nominal	4 88 @	
60 days, actual	4 84½@4 84¾	
sight, actual	4 87 @4 87½	
Cable transfers	4 87¾@4 88	
Commercial, 60 days	4 83¾@4 83¾	
Paris, 60 days	5 22½@5 21¼	
sight	5 20 @5 19¾	
com., 60 days	5 24¼@5 23¾	
com., sight	5 21¼@5 21¼	
Antwerp, 60 days	5 25 @5 24¾	
Swiss, 60 days	5 23¼@5 22½	
sight	5 20¾@5 20	
Reich marks (4) 60 days	94⅞@95	
(4) sight	95¼@95⅝	
(4) nom., 60 days	94¼@94⅝	
(4) com., sight	94⅞@95	
Guilders, 60 days	40⅛@40 3-16	
sight	40 5-16@40⅜	
com., 60 days	39 15-16@40	
com., sight	40⅛@40 3-16	
Copenhagen, Stockholm and Christiana, Krona, 60 days	26⅝@26 11-16	
sight	26⅞@26 15-16	

ORGANIZE A NATIONAL PAINT ASSOCIATION.

It became apparent soon after the formation of the New York Paint, Oil and Varnish Club, that certain questions of trade policy could not be successfully decided without the co-operation of kindred organizations of other localities. The REPORTER was among the first to urge the necessity of organizing a national association, by which all such matters might be adjusted to meet the necessities and conditions of all interested. We were convinced that such questions as the credit system, for instance, could be adjusted satisfactorily only after a full discussion by representatives of all the localities affected, and on various occasions have expressed our convictions in plain terms.

We are glad to see that the suggestions we have made are beginning to bear fruit and that, as a result, the drift of opinion in the paint trade is in favor of a convention or an association such as we have suggested. The secretary of the New York club, acting under instructions, has recently issued a request to the various paint and oil organizations of the country, that they send delegates to a conference to be held at Saratoga in September, during the annual convention of the National Wholesale Druggists' Association. As many of the members of these local paint organizations are also members of the N. W. D. A., the wisdom of selecting this time and place of meeting is obvious, and will no doubt result in a larger representative gathering of paint and color men than might be secured under other circumstances.

While the primary object of this meeting of the paint trade at Saratoga is the discussion and, if possible, the adoption of a uniform system of credits—a matter which is just now absorbing the attention of the trade—there is a possibility that this will be only the first of similar gatherings to be held at stated intervals under a permanent organization. Should a proposition be made at this meeting to organize a National Paint and Oil Association, we have no doubt that it would be carried through unanimously, as the trade has of late been quite thoroughly imbued with the idea that such an organization is a prime necessity. This is apparent in the tone of the circular recently issued by the New England Paint and Oil Club, the pioneer of such associations. In endorsing the call for the meeting of representatives of all the paint clubs, the circular says: "Possibly, also, this proposed meeting may lead to the formation of a National Paint and Oil Association at some future time." If the necessity for such an association is recognized, as the words of this circular and the remarks, at various times, of members of other clubs, would imply, there is no reason why the present would not be just as good a time as any other to organize it.

In view of the benefits accruing to the trade through its local associations, and the certainty that the existence of a national association must be even more advantageous, there exists no good reason for hesitation. This is more apparent when it is remembered that questions have arisen, and that others are likely to arise in the future, which cannot be adjusted to the satisfaction of the entire trade by local legislation. It was such considerations as these which led to the consolidation of the sectional interests of the drug trade in the National Wholesale Druggists' Association, a body which has, unquestionably, done more for that trade, during its comparatively brief existence, than any number of independent local associations could have accomplished under the most favorable circumstances. That is but one of many other similar trade organizations of a national character, which have the influence and the power to put into operation reforms that benefit the whole country. Even the New York Paint, Oil and Varnish Club representing one of the largest communities of interests in its particular field, could not hope to wield one tithe of this influence. It could only suggest reforms, like that of credits, which it would be powerless to carry out.

For the good of the paint trade of the country it is to be hoped that the approaching convention will be productive of more than a settlement of the question it has been called to consider. The hour is propitious and no reason exists but the possible disinclination of some of the delegates, why this should not be the initial meeting of the National Paint and Oil Association.

CONFLICTING VIEWS ON PEPPERMINT OIL.

This is the season of the year when the reader looks for statements from the leading lights in the peppermint oil trade as to the prospects for supplies, and he is generally gratified. As a rule, however, he is as uncertain after he has read the expressions of opinion by all the authorities as he was before he started out in search of information. The peppermint oil market is peculiar in that there is no medium—at this time of the year—between those of extreme bullish tendencies and those who are extremely bearish in their views, and that as a rule neither of the factions are justified in the stand they take by the ultimate course of the market during the season, though each apparently has had the fullest confidence in his own statements. This year there are more bulls than bears, and if anything the expressions of confidence in the future of the market are stronger than they have been at the beginning of former seasons. Whether their opinions are based upon substantial facts, or are the result of a desire for more prosperous times for this particular industry cannot be fully decided until the crop is all in. From the most reliable sources of information at hand we gather that many reasons exist in favor of the former view.

In our correspondence columns this week we give a letter from a well-informed reader who takes decided exceptions to the ultra bearish views expressed in a circular issued by a leading dealer of this city a few weeks since. He goes further and contradicts about every statement made by the dealer, and, being a grower of peppermint and located in the centre of the mint district, he should have an intimate knowledge of the matters he discusses. His views are substantiated by others, who, however, like him, labor under the disadvantage of being what might be considered interested witnesses, since they, too, are mint growers or distillers. Nevertheless, their story is so straightforward as to entitle it, at least, to a respectful hearing and will be likely to have considerable weight.

According to these informants the uprofitable results of the last season discouraged many growers from engaging in the cultivation of peppermint this year. In Wayne county, the story goes, many of the mint fields are worked by men who have no ground or capital, and who pay the owners of the ground by giving them a share of the proceeds of the crop. These small planters were nearly all deterred from making their usual arrangements with the land owners this year because they got nothing for their work last year, and saw nothing in the prospect to encourage the hope that they would be more successful this season. Consequently many acres heretofore devoted to mint were sown with other crops, and if our information is correct there was a smaller acreage planted in peppermint in Wayne county this year than ever before. Should this be substantiated it will be a very important factor in fixing prices for oil of pep permint. According to our Michigan correspondent the shortage in the acreage under cultivation there is as great if not greater than in this state. But against these statements must be considered the indisputable fact that the two and three year oil fields which are the heavy yielders of the plant, are very extensive and, are really of more importance than the current year's plantings.

Another point of resemblance in the reported conditions affecting the peppermint crop in Michigan and Wayne county is the damage done the crop by natural causes. It is stated that cold and drouth so injured the old plants in the last named region that their producing capacity has been reduced to very small proportions, but we are not informed just when the cold and drouth occurred. A letter from one farmer says that four acres he has under cultivation will not give an average yield of over seven gallons of oil per acre. These are doubtless very discouraging signs for both the farmer and consumer, but the latter should keep up his courage for he may find as he has in former years that when he needs the oil it may be forthcoming at tolerably reasonable prices in spite of all that may have been said pro or con at the opening of the season.

THE GLUE MARKET.

Buyers of glue have been exercised over the recent reduction in the price list of low grade glues by a well known manufacturer, but it is claimed that the general market will not be affected thereby, as the action was taken to meet existing circumstances rather than to create a new condition of affairs. To arrive at a true understanding of the cut in prices, it must be understood that no previous change had been made in the list referred to since August 1, 1887, although glue values have been on a decline since that date. There is a feeling, however, that prices have reached the lowest point and more confidence is manifested.

The fluctuations in the glue market have been a good barometer of the condition of the trade, as the sliding scale of the past few years caused several firms to go out of business and to offer factories at ruinous prices. During 1879 and 1880 the market was influenced upward by a combination of circumstances, but the last year named witnessed a collapse of the boom, and values to-day are but one-third the highest price ever reached, which was in 1869. A standard grade of hide glue which formerly realized seventeen cents is now quoted at twelve and a half cents.

The present unsatisfactory condition of the market is principally due to over-production, while the tendency manifested in manufacturing centers all over the world to utilize waste materials, is another prominent factor. Over-production was caused by the rapid progress made by the petroleum industry, creating an important demand for glue, that was followed by new enterprises and enlargement of old factories to supply the wants from this source. The era of high prices also received a check by the largely increased production of glue from bone liquor. It has to a large extent supplanted higher grades, and the economical buyers have been satisfied with the cheap article for their purposes. It is estimated that the output of glues made from foot, pig, bone and bone liquor is from five to six million pounds more than the production of ten years ago, and the same manufacturing activity prevails to a large extent in Europe, but the proportion of increase is not known. We are informed that the glue indus-

try in Germany and England is very much depressed, and that several German factories have recently been closed because of their owners committing suicide on account of financial embarassments. Surplus stocks from Europe are still sent to this country, but the prices realized must be very disappointing.

It is only a question of time when production must be curtailed by the weaker concerns withdrawing from the competitive field. It is conceded that values are too low for a margin of profit, and if the trade is left to the "survival of the fittest," there is some hope of a healthier tone being imparted to the market, but this expectation is so far in the distant future that it offers very little encouragement to the present sufferers. Glue-makers realize the importance of the fact that decreased production is their only salvation, but they are not inclined to move in the matter until compelled by reduced revenue to cease work entirely as some have done recently.

Consumers and dealers have been cautious buyers for some time back, as they evidently possessed an idea of the course of future events, and desired to take advantage of every fluctuation in their favor. As a consequence they are without supplies, and the movement into consumptive channels is very gratifying, but whether this solitary crumb of consolation will satisfy the holders of large stocks who can hardly keep their heads above water, remains to be seen. Many men have entered the business without any knowledge of its requirements. Not knowing what else to do with their money, they concluded to make a "strike" in glue and have paid high for their experience. The story of wrecked fortunes and other vicissitudes of confident investors in this line would make quite a contrast with the history of others who have realized handsome returns from the business, and a moral could be drawn for the benefit of rash investors who enter a peculiar trade without the necessary practical experience to make it a success. It is claimed that no so-called outsider has ventured into the manufacture of glue without meeting with failure.

It is true that a glue association exists and that a meeting is held every autumn to elect officers and to renew ties of friendship, but there is no provision for regulating production or prices, as the constitution prohibits any attempt at combination. It has been suggested that the association change its by-laws at its next annual meeting so as to allow a wider scope of usefulness in this direction, but some of its influential members are known to be opposed to any understanding to improve the market, and there is very little ground upon which to base expectations of better results from any action which the association may take.

THF LARD QUESTION ABROAD.

The lard investigation in Liverpool and London is not confined to the American product, which has been subjected to a close examination, but attention is now directed to what is termed "pure Irish bladdered lard," and the developments thus far have opened the eyes of the pure food advocates to a realization of the fact that the home manufacture requires more careful watching than the importations. Investigation has disclosed a secret of the Irish trade and shows how competition was met by certain compounders who never handled hogs' fat and consequently had no interest in the hog supply or corn crop—two important factors in the American market. The constituents of the remarkable Irish product were found to be pure lard from the United States, pure Irish lard, cotton oil, and beef stearine. The manufacturers displayed good judgment by using a larger proportion of American lard than any other ingredient.

Probably the only objection that could be made against marketing such a compound, is the practice of branding it as "pure." It has not been denounced as unwholesome or its quality otherwise questioned, but a few pessimists have to be satisfied that the laws are strictly enforced. Although the word "pure" is not employed on some American brands of refined lard, they are claimed to be superior in quality to the product made exclusively from the fat of swine. When consumers understand the nature of the discussion which has occupied the attention of two hemispheres for several months, they will not be particular whether the lard is branded "pure" or "compound," as the name of the refiner on the packages is of far more consequence. It may well be said that the firm name alone sells the lard and that it makes no difference what regulations are enforced, as the value of the trade marks is on a strong footing and the faith of consumers cannot be shaken by the diaphanous suggestions of jealous competitors whose actions are prompted by sinister motives.

THE BRITISH ALKALI TRADE.

The problem of the future of the British alkali industry is one of deep interest to all who are in any way affected by it. The rapid strides forward that have been made by the ammonia process, and the equally steady retrogradation of the Leblanc process in the past few years, have largely altered the complexion of the trade, and the future promises even more positive and important changes. It is probably well known that the Leblanc manufacturers are largely, if not entirely, dependent for their profits upon the prices they can obtain for their bleaching powder, once their by-product, but now almost their sole source of revenue. These conditions are not the result of any deterioration in the quality of their alkali product, nor to increased cost of manufacture, but are due to the introduction of the cheaper method of production, which is gradually but surely driving the older manufacturers out of the market.

Already the market prices have fallen below the cost of production by the acid process, as the result of the introduction of the ammonia method, and were it not for their by-products, of which bleaching powder is now the most important, the end of the struggle for the Leblanc manufacturers would not be far off. The question is becoming narrowed down to how much more of an advance in bleaching powder will be necessary to offset the increasing depreciation in soda ash, for while many have turned to the manufacture of caustic soda, the consequent overproduction of that commodity threatens to rob, if it has not already robbed it of its value as a means of staving off what looks very much like the ruin of an industry which flourished prosperously for over a century. As stated two weeks ago in a review of the superficial aspect of the situation, some of the Leblanc alkali manufacturers in the north of England district —the section at present most affected —have given up the struggle, turning their attention to presumably more profitable things, and others are likely to follow their example.

A new factor in the situation, which is not conducive of the Leblanc manufacturers future welfare, but from which they may be able to draw some consolation since it affects proportionately the interests of their competitors, is the proposed consolidation of the Cheshire salt producers' interests. As stated in another column, there are now pending negotiations for the purchase of these interests by a London syndicate, the consummation of which would advance the price of salt, probably to nearly double the present figures. There are other salt districts that might still be drawn upon for supplies, but apart from the question of the probability of these meeting the demands of the alkali manufacturers there is the possibility that they, too, may be absorbed by the syndicate.

The Leblanc manufacturers of Widnes have already grasped the possibilities of this new departure of the salt producers, and have taken steps to anticipate them by boring for salt upon their own properties. They appear to be quite confident of success but should they fail their difficulties will be proportionately increased. After all it is questionable if they would be much worse off with more costly raw material, as the ammonia process manufacturers would be similarly situated, and ultimately consumers would have to pay the difference in cost. One means at the disposal of the Leblanc manufacturers to equalize to some extent the difference between the cost of their process and the other, is the recovery of their waste sulphur, and its practical application to industrial purposes. Much time and money have been spent in experiments looking to the solution of this problem, and while some success has been achieved in this direction it appears to be still uncertain whether it will pay, and should the ammonia process men succeed in their efforts to utilize their waste chlorine, it would scarcely be worth while to push the sulphur recovery experiments further for the purpose now had in view.

JULY PETROLEUM STATISTICS.

The official statements of the various pipe lines for the month of July show that the statistical situation of petroleum has been greatly strengthened during the past month. The runs during July averaged 44,688 barrels per day, which is a decrease of nearly 3,300 barrels from the average runs during June, and is the lowest average since April. The shipments during July show an increase of over 135,000 barrels over those of June and were the largest of any month since February. During July last year the average daily runs exceeded those of last month by nearly 16,000 barrels while the deliveries during the month show an increase of 193,000 barrels. Last year the deliveries were larger during May and June and there was a falling off in July, the active demand for export commencing in August, while this year the demand for refined for export was very light during the early part of the summer and did not set in in earnest until the latter half of July and will probably continue during the remainder of the year, as the stocks abroad are still very light, while the season when the foreign demand increases is already upon us. It is fair to assume, therefore, that the deliveries during the succeeding months will show a further increase, while there is little prospect that there will be any material augmentation of the production and the situation will thus be steadily strengthened. The total of the stocks on hand at the close of July was 23,708,924 barrels, which makes a decrease for the month of 684,121 barrels, and a decrease since the end of July last year of 8,305,402 barrels. The decrease in stocks since the beginning of the shut-in amounts to 7,197,886 barrels. At the present rate of consumption there is now above ground about a nine months' supply and this can be further reduced with advantage to the producer and refiner, though the speculative operator in crude certificates may look with apprehension on a curtailment of the stocks below 20,000,000 barrels. Should the stocks above ground be reduced to say 15,000,000 barrels, the market would not continue to be the football of the speculative operators, and would more promptly respond to altering conditions of supply and demand, although strong combinations could the more readily secure temporary control. The outlook as indicated by the pipe lines statements is encouraging to the producer, but there are too many contingencies to warrant prognostications as to the future.

The official report of exports of mineral oils for the month of July, compiled by the Bureau of Statistics at Washington, is also to hand. The total exports as compared with those of July last year show a decrease of 2,114,487 gallons, and the decrease for the first seven months of the present year compared with the same period last year amounts to 28,134,181 gallons. This decrease is entirely in the illuminating oil, the exports of crude showing an increase. More oil is being refined abroad, and this change will doubtless increase in the future, as encouragement is given to refiners abroad in the way of discriminating duties. During the seven months the exports of crude showed an increase of 4,478,590 gallons, while the exports of refined show a decrease of 32,669,420 gallons. The decrease in the total shipments is largely due to the falling off in the demand for far eastern markets, where we have encountered sharper competition. Though we have been threatened with serious inroads on our trade in Europe, there the Russian oil does not appear to meet with so much favor, and it is only when the difference in price is important that Muscovite oil finds favor.

MISCELLANEOUS OILS SCARCE.

Hardly within the recollection of the REPORTER has such a firm feeling prevailed in the market for oils and greases during a midsummer season, as is to be noted at this time. Cotton oil as the leader, is doing more than meeting expectations. Ceylon cocoanut oil is higher in price than it has been for some time and promises to advance further owing to limited supplies. Olive oil experienced a reaction to higher values last week after a steady market for about two months and olive soap stock is sympathizing to some extent; the cause of the better feeling in the latter two articles is laid to the credit of speculators at the source of supply who are interested in circulating crop reports which may be true or otherwise. The position of lard is well known to the trade and the sharp fluctuations which have been principally upward, are easily accounted for; official statistics show visible stocks of lard this season to be 100,000 tierces smaller than a year ago, and 106,000 tierces below the average for August 1 for six years previous to this season. Lard oil pressers have good reasons for maintaining firm views, and indications would point to better results which might have been reached sooner had it not been for sharp rivalry. Hog and beef stearines have had an unusual experience in favor of holders whose terms are more readily accepted; beef stearine is practically cornered and the few holders are indifferent sellers at their elevated views. The tallow situation presents a more encouraging aspect than it did during the past two years, and the higher prices being realized are forming a basis for the market in other greases to improve; the feeling may be called buoyant and is attributed to limited supplies and a good foreign demand, which in fact is a leading feature of all the articles mentioned. When speaking of the tallow market we have special reference to prime or choice city or out of town brands which are held in the neighborhood of four and five-eighth cents per pound. There are other grades at various prices which are seldom if ever quoted in the regular mar-

ket. Refined tallow is used in compounding lubricants or for other purposes, and the limited production finds a sale at the high figures of five and a half and six cents per pound or a fraction above. Bone tallow is a rare article used by soap makers and commands four and a quarter cents. Naphtha tallow is very dark in color and rather odoriferous; naphtha is employed to extract the grease from refuse materials and we have the result as above described; the production is limited and it has no stated value. Tallow oil seldom changes in value and is to be quoted within the range of forty-two and fifty-five cents per gallon; it is being supplanted like lard oil by mineral lubricating grades.

Among the fish oils, menhaden is attracting most attention and the situation is becoming more encouraging to sellers as the fishing progresses. The demand is fully equal to the supply, which is such a rare occurrence that the oldest trader cannot remember when such a state of affairs existed previously. The greatly reduced fleet of steamers, and poor condition of the fish, are expected to prevent full supplies of oil, and Eastern buyers principally have taken advantage of present values to load up for future use in the expectation of higher prices. The season commenced in an unusual way, the fishing thus far has been poor and the close will doubtless show an unsatisfactory result of the combined effort to improve the industry.

The course of the linseed oil market is a problem, and few there are who attempt to solve it. While city crushers have been firm as a rock in demanding the old price of fifty-three cents per gallon because the situation called for a positive and unflinching attitude, out of town brands have been selling all around them at forty-five and six cents for the past two weeks, but without influencing the city crushers to alter their views. They find no decrease in business as the result of outside concessions, but the great enigma to them is, what persuaded their competitors to accept forty-five cents in this market when they could have realized fifty cents for every gallon sold. Rivalry among certain out of town firms who wanted to distribute their products in New York did the slaughtering business. They had no intention of competing with the Calcutta seed oil made by the city crushers, but an ambition to get ahead of more distant concerns, assisted by the rumors of a large crop of seed, hastened the shipment of oil and precipitated the decline. Western opinions predict a lower market.

Thus it will be seen that the usual midsummer dullness has been supplanted by active trading at better rates, with the exception of linseed oil. It appears strange that the cause should be attributed generally to limited supplies and the larger foreign outlet—that the majority of articles in this line should be found in parallel positions at this season of the year. Another evidence of prosperous markets is the fact that freight rates are generally strengthening and that the majority of the dealers and carriers in export interest claim to anticipate an active fall and winter season as the result of a European demand for American products.

A NEW CATTLE FOOD.

Cottonseed bran has been placed upon the market as a substitute for hay, and it is expected to come into favor at once on the stock farms where it is now on trial and gives satisfaction because it is more nutritious than hay or any other rough food now in use, and costs less, besides having none of the waste that usually attends the feeding of other materials. From analyses made at the University of Illinois recently of the bran and a mixture with cottonseed meal, also of buckwheat straw, cut straw and hay, the conclusion was arrived at that the bran in its nutritive ratio is the equal of the best hay, whilst with a mixture of from ten to twenty per cent. of cottonseed meal a food is guaranteed for flesh and fat forming purposes that excels hay or any known roughening food now in use; besides, it increases the quantity and improves the quality of the milk. Where distillery product is fed the cottonseed bran is most particularly economical.

The value of the food depends not only upon the total quantities of fat, crude proteine and carbohydrates it may contain, but in the proportions in which they may be present, as related to each other. When the proper ratio does not prevail imperfect digestion results. The commercial value of a food must be, and is based upon the quantities of each of these constituents present.

THE NEW CROP OF SUMAC.

The importers of sumac in this city have received during the past week further advices from Palermo in reference to the new crop, and from them it would appear that the first impressions of the crop have been fully realized. Sumac, as is well known, is grown both upon the mountain sides and on the plains the former being harvested first. It is said the crop on the mountains will only be seventy-five per cent. of an average yield. Later on full advices will be received in relation to the crop on the plains, but it is estimated that the yield from that source will fall short of an average crop by about twenty to twenty-five per cent. Many of the fields have not been cultivated at all, owing to the fact that the low prices which ruled last season did not warrant growers in again giving their time and labor to an industry that did not pay. The quality of the new crop thus far has been very good, and under existing circumstances prices should be higher, although it is asserted that, owing to a want of money, certain exporters have been operating with the expectation of a decline and have consummated transactions at figures considerably below the market price of to-day. An important factor in the regulation of prices will, of course, be the demand, which for some little time has been limited. But with a brisk inquiry and with the continuance of high freight rates it seems reasonably certain that values will be put on a better basis.

THE ADVANCE IN FREIGHT RATES.

The advance in the rates on transatlantic shipments of petroleum have affected rates on other freights, and all the explanation given by shipping agents is that the demand for petroleum vessels has been unusually brisk, causing an advance which naturally extends to all classes of shipments. The advance has been over one hundred per cent to continental ports, while to London the advance has been over one hundred and fifty per cent. This has been caused by a sudden increase in the demand for sail tonnage for petroleum at a time when there was a comparative scarcity of desirable bottoms. Just previous to the advance the rates had dropped so low that the service became unprofitable and vessels sought engagement at other ports, and when the increased demand was developed the available tonnage was inadequate. Sail tonnage has of late years been allowed to decrease, vessels being lost every month and but few replaced by new ones. The comparative scarcity of vessels will soon be relieved, as the fleet of tank steamships recently removed from American traffic and placed in service between Batoum and the Continental ports have abandoned the Russian oil carrying trade and will resume their trips between American and European ports. To these steamers will soon be added two more, which will make the total capacity of tank steamers in the American petroleum carrying trade over 100,000 barrels. As this service has been found entirely satisfactory, the petroleum carrying trade will, in the near future, be by tank steamers almost exclusively, when a scarcity of vessels and consequent extraordinary advance in freight rates, such as at present affects the petroleum industry, will not be possible.

TRADE ITEMS.

Messrs. Sharpe Bros., of Statesville, N. C., have purchased the botanic business of L. Pinkus.

Mr. Charles S. Fobes, of the firm of Burgess, Fobes & Co., wholesale paint dealers of Portland, Me., is in the city.

Mr. R. L. Heflin, a broker in cottonseed products at New Orleans, was in the city last week and visited the Produce Exchange.

Mr. Mario Liebman has returned from a two months trip to Europe, during which he visited Sicily and many points on the continent.

Mr. Chas. H. Patrick, treasurer of the H. W. Johns Manufacturing Company, left last Thursday for a three week's vacation at the Thousand Islands.

The M. Block Drug Company, wholesale druggists, were entirely burned out in the great fire which visited Chattanooga, Tenn., on Friday morning last.

The attention of our readers is directed to the card on another page of R. J. Baker & Co., Baltimore, manufacturers in excelsior and artisan flint paper, glue, emery, &c.

At Springfield, Ohio, August 10, fire broke out in a very mysterious way in W. T. Smith's drug store, on Market street. The entire stock was damaged, and the loss is estimated at $2,000. The insurance on stock amounts to $1,500.

A telegram from Boothbay, Me., says that Church & Co., of Rhode Island, have leased the factories of W. E. Sawyer and the Suffolk Oil Works, and will carry on the menhaden business this season.

Mr. Jacob Hasslacher of the firm of Roessler & Hasslacher, of this city, sailed on the Lahn last Wednesday for Europe. He will be absent about eight weeks and on his trip will combine business with pleasure.

The Wm. B. Price Manufacturing Co., Baltimore, Md., manufacturers of paints of all kinds, dry and ground in oil, have an announcement on another page. They manufacture the celebrated specialty Marbleine for walls, which they claim to be superior to kalsomine.

On another page of this issue will be found the advertisement of Mr. John H. Riley, of Baltimore, manufacturer of gold leaf, aluminum leaf and bronze powders. The house was established in 1866 and has enjoyed a prosperous business since then.

Money is very cheap, and the general restoration of confidence in the future is certain to lead to its investment in new enterprises. Altogether the outlook is very gratifying, and unless signs fail the coming year will be one of the most prosperous in our history.—N. Y. *Herald.*

A cablegram from Paris says that the glass makers of Lyons threaten to strike unless the firms of Mesmer and Jayet amalgamate and permit their employes to work in batches in rotation. If a strike occurs in Lyons it will in all probability extend to the glass workers of Paris and the whole of France.

Mr. Harmer, a member of Congress from Pennsylvania, last week presented a petition of citizens of Pennsylvania, in favor of the repeal of that portion of the international revenue law which classes druggists as liquor dealers. It was referred to the proper committee.

The Distillers and Cattle Feeders' Trust, commonly called the "Whisky Trust," is a great corporative concern, consisting of eighty-one establishments and producing from 85 to 95 per cent. of all the alcohol manufactured in this country. It is formed after the manner of the Sugar Trust.

According to the *Essen Zeitung*, Chief Engineer Thier of Erfurt, Germany, after battling for months to find a lubricant which would prevent iron surfaces welding together when subjected to rapid friction under heavy pressure, at last found one in mustard oil mixed with petroleum, which completely overcame the difficulty.

Mr, Charles E. Hires, the wholesale botanic druggist of Philadelphia, is having quite a run on his improved root beer. The pure essence of fresh medicinal barks and roots is sent out in small bottles, from each of which five gallons of beer can be made without boiling or straining at a total cost of 25 cents. It has become popular as a summer drink.

Mr. Ferdinand Dickert has sent the following notice to the stockholders of the Dickert & Myers Sulphur Co., under date of August 9

"The order levying an assessment on the capital stock of the Dickert & Myers Sulphur Co., made June 13th, 1888, has been revoked, the assessment abandoned, and no further proceedings will be taken thereunder."

Great anxiety is felt at the office of Ralli Brothers about the large four-masted ship, Falls of Halladale, which is long overdue. The ship left Calcutta with Indian goods on the 15th of March, and has now been out 146 days. She had nearly 3,000 tons of merchandise on board, consigned to Ralli Brothers, including 8,137 bags of linseed. The vessel is fully insured.

Congress is investigating a charge made against a proprietary medicine firm in Boston of using Congressional envelopes for distributing circulars. The use of an envelope in this way to send anything except public documents through the mail free of postage, is in direct violation of the United States statute on the subject, which imposes a fine for each and every offence.

A glass factory is reported as about to be established at Denver, Col. The projector says Colorado has as good material of manufacture as any place in the country. He thinks the tank system will be the coming method of manufacture. He believes that Colorado mills would have a market for 1,500,000 boxes of window glass annually in Mexico, Texas, Wyoming, East Oregon and Washington Territory.

Mr. Louis Hoffmann, of Baltimore, Md., importer of artists' and paint brushes, has an advertisement in the REPORTER this week. Mr. Hoffmann is the sole agent in this country for some of the largest manufacturers of artists' and paint brushes in Europe. He is also general agent in this country for the "graining transfer paper."

The Rochester, Pa., Tumbler Company, one of the largest of the kind in the world, has concluded to divide profits with its employees. From $25,000 to $30,000 worth of stock will be presented to a number of men in charge of higher grades of work. The company was organized sixteen years ago as a semi-co-operative concern in which a number of men holding responsible positions were given shares in the profits.

A California company is about to begin the manufacture of soap from clay containing soap properties, presumably similar in character to the natural soap well which has been discovered near Buffalo Gap in Dakota. The soap is skimmed from a boiling spring, and hardens by exposure to the air. It is like soft clay, and can be gathered with a shovel. It is supposed to be a mixture of borax, alkali and lubricating oil.

In speaking of the soap makers movement the St. Louis *Grocer* says: "It will 'merely establish a regular price on standard goods and on cheaper goods,' and do a few other things. Among other things it will put an end to manufacturers issuing an unlimited number of brands of soap—they will be confined to about ten each. Then soap adulteration is to be done away with 'entirely,' and all soap is to be cut full weight. Excellent! Most excellent!"

Although the lead production in the United States last year was greater than ever before the *American Artisan* predicts that the unprecedented yield will be exceeded by this year's product. Last year's aggregate was 160,700 net tons, and the rate of production is now more rapid in Missouri, Colorado, Nevada, Utah and Idaho than during that year, while new sources of supply have been opened in other states.

Chairman Allison, of the Sub-committee of the Senate Committee on Finance, preparing the tariff bill, says the hearings which are being given to various industries have not yet closed, and that there is no probability of the bill going to the Senate this week. It will create no surprise in the Senate among those who are best posted on the subject if the tariff bill does not come up for debate before the 1st of September, and most of the old senators are predicting that adjournment will not be had until some time in October.

Messrs. Thoms & Co. are now manufacturers of *Rock Candy Syrup* in Baltimore, Md., and their advertisement will be found on another page of this issue. Mr. Peter Thoms was formerly with the Canton Sugar Refinery, Baltimore, one of the largest refineries of sugars and syrups in the world, and was also in the same business in Cuba for years, and has probably as much experience in this line as any one else. They claim to manufacture a syrup especially adapted for the drug trade, and will guarantee all of their goods as equal to any in the market. Correspondence solicited for domestic and export trade.

Among a number of wealthy Philadelphia merchants mentioned in the Philadelphia *Record* last Saturday was the head of the chemical firm of Rosengarten & Sons. The *Record* says: "He is worth over $2,000,000, and I do not know how much more. He has made it all himself, too. He went into chemicals early, and in addition to the immense business he has built up he has made a good deal of money by fortunate investments. He is now very old—88 years, I believe, and has retired, of course. He lives in a big house at Sixteenth and Chestnut streets. His sons, Samuel G., Mitchell G., Harry B., Frank H. and Major Joseph G., the lawyer, are all pretty well off too, I suppose."

Mr. Joseph B. Greenhut, president of the National Distillers' and Cattle Feeders' Trust, stated before the House Committee on Manufactures last week, that of the total annual output of the trust (40,000,000 gallons of spirits) about 15 per cent. was consumed as a beverage, 8,000,000 gallons was used in the arts, and the remainder in manufactures and wine fortifications. The witness believed that the natural advantages, such as cheap fuel, grain and other raw material, the manufacturers of spirits was fully able to meet European competition without the aid of import duties, which, in his opinion, were not necessary to enable our spirit makers to control the market at home. Exclusive of the "moonshiners" Mr. Greenhut believed that the association represented by himself made 85 or 95 per cent. of the entire quantity of alcohol manufactured in this country.

In contributing his share in behalf of soda, the delegate from Wyoming Territory, during the tariff debate, made to the House the following statement: "The United States does not require the soda of any foreign country. We have enough soda in Wyoming Territory to supply the United States for centuries. Professor Ricketts, Territorial Geologist, says that 'these deposits of soda, found almost pure in great lakes in various places in the territory, are practically inexhaustible.' This soda is so abundant at different points in the territory that the cost of the manufacture of the various products from it may be determined by the interest on the capital invested, the cost of the fuel, and the cost of the labor expended. The crude soda costs but little more than the expense of handling and the transportation from the place of deposit to the place of manufacture."

The flint glass shut down at Pittsburgh is to be broken on Monday, when it is expected that about 120 factories will be running. These will give employment to about 4,000 men. A number of the firms have made extensive repairs during the shut-down. George A. Macbeth & Co. have increased the capacity of their works 30 per cent. They have put in seventeen more pots. King, Son & Co. have changed the firm name to the King Glass Company. They have leased the old McKee plant. This will give them greatly increased facilities. Ihmsen's house, on fourteenth St, has been enlarged, and the works of Thomas Evans, on Eighteenth street, have been increased. Sellers McKee, who has removed to Grapeville, increases the number of his pots from thirty-four to forty-eight. The old Doyle house, at Phillipsburg, is being put in shape to be fired up. Two new factories have been started at Little Washington and a number at Fostoria and Findlay, O.

A manufacturer of some patent compound or other came into the laboratory of an analytical chemist in Providence with a bottle containing an unwholesome-looking mixture. "I would give $100," he said, "to know what would make the water and oil in this emulsion separate." The chemist looked at it. "Very well," he said, "write your check." "Check!" the other echoed. "Yes, your check for $100. You say you are willing to give that, and for that price I am willing to tell you what will make the water and oil separate." The visitor hesitated a moment and then wrote his check for the sum named. The chemist carefully deposited it in his pocket book and then quietly dropped into the liquid a pinch of common salt. Instantly the water and oil separated, and whether the client was satisfied or not he had got what he wanted, and he had paid his own price for it.—*Providence Journal.*

The veteran establishment of E. & S. Frey, wholesale druggists, Baltimore, Md., has been in existence since January 1, 1833, and is the oldest wholesale drug house in that city. Mr. Charles W. Logan, the present proprietor, became connected with the house on October 1, 1845, and has continued without interruption until the present. This is the firm that manufactures the widely-known "Frey's Vermifuge"—in use over fifty years—and a number of other remedies and preparations. Chas. W. Logan's Choice Flavoring Extracts are attracting much attention. The name of this firm upon any preparation is a guarantee that it is worthy of confidence. Although a native of Virginia, Mr. Logan has resided in Baltimore since 1835, has been connected with the house nearly forty-three years, has superintended its manufactures for thirty years past, and bears an unblemished reputation. Those who favor this house with orders may be assured of fair dealing. An advertisement will be seen on another page.

PETROLEUM NOTES.

The Amazon Oil Company, of Pittsburg, with $800,000 capital, was chartered at Harrisburg last week.

The Philadelphia Gas Company has a good flow of gas in the Gantz sand, on the farm of Hon. Jonathan Allison, Chartiers township, but will drill down to the Gordon sand.

The Washington Oil Company has brought suit to eject J. W. Dannan and J. P. Miller, of Washington, Pa., from the Vincent Blaney farm, a valuble oil producing property in the Taylorstown field.

The great demand for suitable vessels for the petroleum carrying trade has diminished the supply of square rigged sailing craft to such an extent that there are but four unchartered vessels now in Philadelphia.

What is regarded as the biggest cargo of petroleum that has ever entered the port of Bristol arrived there recently. The ship which brought it is the Battle Abbey, and she had aboard 13,888 barrels of oil, weighing 1,556 tons.

The oil well drilled in on the Hetrick farm in the Lima field last Friday started flowing forty barrels an hour. The same evening it caught fire from the furnace of the boiler, entirely destroying the rig, tank, and machinery. Loss about $3,000 besides the value of lease.

At Lima, O., last Saturday, the oil well drilled in on the Hetrick farm started flowing forty barrels an hour. It caught fire from the furnace of the boiler, entirely destroying the rig, tanks, machinery and all. Loss about $3,000, besides the value of the lease.

Mr. R. B. Turnbull, of the Eagle Refining Company, Cleveland, paid his respects to the REPORTER on Monday. Mr. Turnbull reports business active with his company and that they have a steady outlet for all the illuminating oil the works can produce. He expects to remain in the city a week or two.

Fergus & Co.'s Fergus' Homestead No. 1 is producing 60 barrels a day. The old gusher is producing 140 barrels a day. It has produced over 100,000 barrels, while Chartiers' Fergus 5, drilled a year since, has produced 150,000. The latter is one location south of John McKeown's big Martin gusher, which has produced nearly 300,000.

The Pittsburgh Committee of Freight Agents have agreed upon a schedule for oil which will go into effect on September 1. From Pittsburg, per 100 pounds, to the following places the rates will be: Chicago 17½c, East St. Louis 19½d, Cairo 22c, Terre Haute 17½c, Cincinnati 12c, Detroit 10½c, Columbus 9c, Fort Wayne 12½c, Cleveland 8½c Joliet 17½c, South Bend 16½c, Milwaukee 19½c, Indianapolis 13½c.

For some time past a party of engineers have been engaged in examining the country south of Milwaukee and running a line southward toward Chicago. It has been learned that the purpose of their explorations is to locate a pipe line for the transmission of oil from Chicago to Milwaukee. Several parties are engaged in the field between Milwaukee and Chicago. It is evidently the intention of the Company to extend lines to other Western cities.

Carelessness on the part of an engineer caused a collision between two "Q." freight trains on Sunday and entailed a total loss of $40,000. A number of oil cars were struck by the locomotive of a train going in an opposite direction and upset. The oil, of which there were 20,000 gallons, was soon afire. It destroyed four Union Tank Line cars and ruined the locomotive which was the cause of the whole trouble.

During the past ten days no less than 93 vessels, with a total capacity of about 600,000 bbls, have been chartered on the spot and to arrive, to load petroleum for European ports. Besides, reference to the record of vessels in port discloses the fact that there are 108 here, 35 at Philadelphia and 6 at Baltimore and Boston engaged for petroleum carriage. The capacity of these 149 vessels is about 960,000 barrels.

Allen and Auglaize counties, right in the center of the Ohio oil belt, have been troubled a great deal lately by the chinch-bug. In some cases the bugs have nearly destroyed whole fields of oats, and have worked in the corn with disastrous results. A few days ago some of the farmers began the use of Lima crude oil by scattering it on the ground of the fields infested with the pests, and it has had the effect of killing them and driving them off.

The latest developments in the natural gas find at Chicago show that the supply at present is greater than the demand. In fact, Mr. Bullen, the maltster on whose property the gas was found, seems rather to think he has an elephant on his hands. When the gas was discovered, Mr. Bullen thought that it would go out in the same manner as that discovered last winter. However, there seems to be a flow from the well that may equal some of the Pittsburgh finds. The well is seventy-four feet deep.

The barrel painters, fillers and hoop drivers who struck for higher pay at the National, International, Western, Rice, Robinson & Withertop, American and Crescent Refineries are still out, and their places, with a few exceptions, have been filled by new men. The strike, as is already known, was for an advance in wages from $1 75 to $2 00 per day, which the employers refused on the ground that they had increased wages 25 cents per day but a short time since, and that they were paying higher wages for the work than refiners in other cities. The men make a counter statement that $2 00 and over is paid for that kind of work in Buffalo and Olean, and hold that it is skilled labor, which the employers deny.—*Titusville World.*

Immediately after the fatal explosion on the steamer Julia and the condemnation of petroleum as a fuel for use on steam vessels by the coast inspectors, the San Francisco board of fire commissioners made careful investigations of petroleum as fuel. The result was an ordinance was submitted to the board of supervisors requiring that all petroleum used as fuel should be able to withstand a 90-degree flash test. This called forth protests from various manufacturers who were using petroleum. They said that with coal at the present high rate they were enabled by using petroleum to save from $50 to $100 a day. Should the ordinance be enacted they would be compelled to close down their works, as it was absolutely impossible for them to compete with Eastern firms using for fuel either natural gas or petroleum.

The Presque Isle Company's well is below the level of 3,600 feet and the drill is still running in the white slate—a very fine, smooth rock, with scarcely any grit in its composition. The power is pushed hard to handle the tools at this great depth and although the rock cutting itself is not difficult the drilling is slow and must necessarily be slower as the well goes down. The Presque Isle Company's well is now probably the deepest well in the world, and the tools are so heated by the friction and the rise of temperature that one of the drillers suggested the possible limits of drilling as 5,000 feet—where the heat from the causes before named would probably become great enough to take the temper out of the tools. The margin of future possibilities for a gas strike are narrowing to a degree that makes the work of drilling the next three hundred feet a very important operation for Erie.—*Erie Dispatch.*

From March 15, 1886 to August 4, 1888, there were 1,511 leases of oil and gas territory recorded in Allegheny county; 280 of these were for gas territory, the remaining 1,231 were oil leases. Four hundred and twenty of the last named were duplicates, having been entered on the Record book twice, they being transferred to another lease after being first entered. This leaves 811 farms net that have been entered for oil boring purposes. These farms aggregate over 55,000 acres. This is certainly extraordinary when the fact is considered that five years ago scarcely any person dreamed of oil territory being located in Allegheny county. The amount of money paid as bonuses on these farms oftentimes foots up as much as the farmer would receive for the soil products of the land. The granger so far has been greatly benefited by the boom, as a number of instances are related where heavy indebtedness on land has been lifted by means of bonus money.

About three years ago an old gas well which had been bored on the Ries, Brown and Berger properties, near Newcastle, after 12 years of rest, suddenly began to flow, and the gas when lit presented a jet of fire about 12 feet high. At the same time an exceptionally large flow of water, highly charged with medicinal deposits, was observed, and a company immediately took advantage of these facts, built a bathing establishment, and Newcastleites have since enjoyed mineral baths, without leaving the city. A well, supposed to be upon the same belt, and sunk about 16 years ago on the farm of a Mr. Ackworth, about three miles north of the city, suddenly began to roar and water was thrown high in the air. The peculiarities of this well are exactly alike to that of the Berger well, and the accepted theory is that if they had been drilled a few feet deeper a good supply of gas would have been struck. As it is, the volume of gas periodically bursts through the comparatively thin layer of earth between the gas cavity and the hole bottom and flows until the passage becomes clogged by dirt and gravel, the cessation depending upon the solidity of the filling.

OBITUARY.

JOHN BRYCE.

Mr. John Bryce, of the glass manufacturing firm of Bryce, Higbee & Co., Pittsburg, died last week, aged 64 years, from rheumatism of the heart. He was the youngest of three brothers, Robert and James, of Bryce Bros., being the other two. After leaving school he learned the glass business at Bakewell's factory, where the late John Adams, William Doyle and several others since grown prominent in the trade received the first rudiments of knowledge in the glass making line. His first venture in glass manufacturing was in the firm of Bryce, McKee & Co., afterwards Bryce, Richards & Co., and Bryce, Walker & Co. In 1879, with his son, Mr. C. K. Bryce, and Mr. John B. Higbee, he organized the firm of Bryce, Higbee & Co., and they commenced the erection of a new factory at Homestead on May 26 in that year, which was put in operation on September 25 following, and Mr. Bryce remained connected with this firm up to his death. A wife, daughter and three sons survive him.

EDWARD P. HUYLAR.

Edward P. Huylar died at the home of Dr. Salisbury, No. 9 West 19th street, on Saturday in his 69th year. He was borne in New Brunswick, N. J., and his early life was spent in Keyport, in the same State. About 34 years ago he came to this city and started in the daguerreotype business. A few years afterward he gave up that and began to manufacture proprietary medicines and accumulated a large fortune in a short time. During the last four or five years he paid little attention to his business, which is at Third and Thompson streets, leaving it largely in the hands of his manager. His health failed about a year ago, and his physician, Dr. Salisbury, made room for him in his home during the absence of the doctor's family in the country. Mr. Huylar had been married a number of years, but had no children. He leaves real estate in this city and Newark valued at $1,000,000.

CORRESPONDENCE.

This column is always open for the expression of public opinion, but the REPORTER assumes no responsibility for the views expressed by any correspondent.

Oil of Peppermint.

PARKVILLE, MICH., Aug. 4, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

In your issue of July 25, reference is made to the circular of Mr. James B. Horner, in which he discusses the prospects and conditions of the crop. If Mr. Horner intended to enlighten his readers upon the conditions and prospects of the crop in Michigan, he is very far from the truth. The present outlook is very unfavorable, and the drouth will be as disastrous to the crop as last year; the leaves are dropping off badly and what two year old mint is left, is being distilled as fast as possible to save what little there is, the average being not over 3 lbs. per acre from what is cut; much of it will not be cut as it is too short and thin, and full of weeds to pay expenses. Mr. Horner says the only bullish feature cited is the fact that the acreage planted this year is only about one third as great as last year, I will add a little more to "that feature" and say, that there was not one acre planted this year to five planted last year in St. Joseph County and immediate surroundings. The bearish features of Mr. Horner's circular become prominent when he says "there are three crops from a single planting, and we have the plantings of 1886 which will yield but little less than they did the second year; the plantings of 1887 which give their fullest yield this year, and the new acreage of 1888, so that the crop of 1888 promises to be fully equal to that of any preceding years." The fact is that there are never but two crops from a single planting on upland, and this year the second crop is almost a total failure; fully one-half the crop was plowed up and that left will not average two pounds per acre.

Again, Mr. Horner says, fully half the oil remains in the hands of producers or speculators, and is held by the banks as security for loans. How much oil the speculators are holding I do not know, but I do know that the producers are holding but a very small fraction, and as for the banks, the idea is simply preposterous. Who ever heard of a bank holding oil as security for loans?

It requires quite a stretch of the imagination and a desire to bear the market, to make such representations as the Colonel has in his circular.

Statistics taken by the mint growers' association show that the amount of oil raised in St. Joseph and surrounding counties in 1886 was about 75,000 pounds, and in 1887 a little over 60,000 pounds, and from partial statistics taken, it is believed that the yield will be less than 40,000 pounds in the same territory this year.

The mint crop is a costly one to raise, costing at least $25 per acre for roots, planting, cultivating, weeding and hoeing; the risk of loss from freezing and drought is far greater than any other crop. Not one grower in twenty made it pay expenses last year, counting nothing for the use of the land.

The beginners are thoroughly disgusted with mint raising, and the old ones are badly demoralized. The average yield of oil per acre of new mint on upland last year was but seven pounds per acre, and the second crop but four. Now I make this prediction, that the price of oil touched a lower figure this year than it will for the next two years at least, and in less than six months speculative dealers will wish they had loaded up when oil could have been bought for less than two dollars per pound.

GEO. W. OSBORN.

Sulphonal.

NEW YORK, August 9, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

With reference to the article on sulphonal published in your paper of the 8th inst., we beg to say that from the construction of the article the reader might conclude that the many observations of the effects of sulphonal were based on sulphonal "Riedel." The fact is that the Farbenfabriken vormals Friedr. Bayer & Co. in Elberfeld, are the original manufacturers and all the experiments, as described in the "Berliner Klinische Wochenschrift," have been made with sulphonal Bayer.

Professor Kast employed it in 60 cases. Dr. G. Rabbas, assistant physician at the insane asylum in Marburg administered it 220 times to 27 insane patients.

Dr. Heinr. Rosin, assistant physician at the Allerheiligen Hospital in Breslau employed it in 274 separate cases.

Dr. Carl Oestreicher, assistant physician at the Maison de Sante, Schoeneberg, Berlin, used it 128 times.

Dr. Julius Schwalbe, assistant physician on the City Hospital, Friedrichshain, in Berlin, department of Prof. Fuerbringer, reports the results of sulphonal in 50 cases.

In the pamphlet recently published by Mr. J. D. Riedel, of Berlin, he states that all the above experiments have been made with sulphonal, "Bayer."

The term "Sulfonal" was given by the *Farbenfabriken*, vormals Fried. Bayer & Co., in Elberfeld, who made, several months since, applications in Washington for a patent for the article and a trade-mark for the name.

The statement in your article that sulphonal, "Riedel," has up to the present time been exclusively sold in the United States is incorrect, as we received the first lot of sulphonal, "Bayer," in June last.

The manufacturers as yet have not been able to furnish a liberal supply of sulphonal, as their manufactory had to be transferred from its former location to other premises outside the town, owing to the offensive odor arising from one of the raw materials during the process of manufacture. The Farbenfabriken, formerly Friedr. Bayer & Co., in Elberfeld, in order to insure the continuity of their output of sulphonal, commenced the erection of a further plant, utterly isolated from every human habitation, so that, should the difficulties in their present premises become insurmountable, they can at least continue the manufacture in the new works. Liberal supplies are, however, soon expected.

W. H. SCHIEFFELIN & Co.

Corn Oil as a Lubricant.

ROCHESTER, N. Y., Aug 6, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

I have been interested in the various articles that have lately appeared in your journal regarding corn or maize oil. Thinking my experience in corn oil might possibly be of some value, I give it for what it is worth. I undertook some years since to see what could be done with corn or maize oil, and found that it very readily united at the proper heat with castor oil, and the two then would hold and accept without precipitation, or separating about 33% of mineral oil. A compound composed of equal parts of corn oil, castor and paraffine made a nice lubricant, but I was convinced that corn added very little or no value to the mixture. In brief, I consider from such experiments and tests as I made, that corn oil possessed certainly no better lubricating quality than a good paraffine oil. If I remember rightly it could hardly be made to burn, and not at all under ordinary conditions.

T. T. SOUTHWICK.

The Glass Tariff.

NEW YORK, Aug. 7, 1888.

Editor, OIL, PAINT AND DRUG REPORTER:

In your issue of July 30, you publish a letter from Mr. R. S. Morrison, on the question of Tariff on Window Glass. If you will permit me to occupy a small portion of your valuable paper, I will briefly try to show the splendid (?) features of the Mills tariff bill.

In the first place, it favors the rich man and leaves the poor man severely alone.

It does not reduce the duty at all on sizes below 10x15, or in other words, on the glass that goes into the poor man's cottage or into the homes of the poor struggling farmer of the West but it reduces the duty on sizes that are used in the homes of the wealthy and the large buildings owned by the capitalists.

Mr. Morrison says that the duty is one-half the cost of the glass, but I claim that the following figures will show how near correct Mr. M. is: The duty on 10 x 15 and under as per Mills bill, is 80 per cent of the cost of the glass, laid down in New York. The duty on a 40 x 60 as per Mills bill, would be 50 per cent of the cost of the glass, laid down in New York.

These figures speak for themselves. Glass is made entirely by hand and the workman is paid by a scale based on the sizes sold. If the Mills bill should become a law, all the large sizes would be imported and the workman's wages would be reduced one-half.

The Mills bill not only directly injures the American glass workman, but indirectly affects every poor man and farmer, who buys window glass, and the only people who are benefited by it are the Belgium manufacturers and their customers, the importers. What the American people want is not reduction but an equalization of the duties. Reduce the duty on 10x15 and increase it on 40x60 and it will not only benefit the American workman but will decrease the importation of foreign glass and assist in reducing that great "night mare" of the free traders, "our surplus."

D. H. ROBERTS.

CHICAGO LETTER.

Special correspondence of the REPORTER.

CHICAGO, Aug. 11, 1888.

If the market in linseed oil had not been so full of surprises in the past, there might be rather more astonishment at its present status. While the past week has witnessed an advance in flaxseed, and the present feeling is one of unanticipated firmness, another drop of two cents is to be recorded in oil. To-day's quotations are 46c for lots of 50 barrels and upward, with a sliding scale reaching a maximum of 49 cents for single barrels. What on its face would seem to be still more astonishing is the fact that in certain quarters there seems to be as unusual anxiety to sell, and that too most pronounced in one or two quarters in which it was generally supposed that no great quantity of oil could be found. This has led to some little conjecture, and there are those unkind enough to hint at the possibility of the existence of the relation of principal and agent between somebody who has oil and someone whose past or present business relations with the former are or have been such as to induce the latter to attempt to dispose of a surplus stock. This, however, is purely a surmise, and is given only for what it is worth. A more plausible explanation is perhaps to be found in the fact that stocks have not been so thoroughly depleted as had been expected, and that a desire to clear out a remainder of oil expressed from high-priced seed before the arrival of any great amount of the new crop of seed has exerted a potent influence upon the action of crushers. At first sight it would strike one as anomalous that oil should drop at precisely the time when seed began to manifest a tendency to rise. Such a state of affairs would seem to be a practical reversal of all the established principles of political economy. But, as was said a week ago, the position is not without precedent. At the same time it seems probable that the existing firmness in the seed market is due, in no small degree, to the fact that receipts up to date have fallen considerably short of what had been anticipated, and it must also be borne in mind that the disparity between the prices of oil and flax to-day, when the former is 46c and the latter $1.12, is far greater than a year ago, the latter at $1.01-@1.02. On the whole crushers appear to be the most contented lot of mortals for men who growl about dull trade and a falling market that one could desire to see. From the fact that the trustees of the linseed trust have just declared a quarterly dividend of one per cent, to be paid from accrued profits, one might be tempted to infer that the season has not been altogether without its compensations.

The last decline has evoked a sort of sardonic smile among the jobbing fraternity, some of whom have been for some time prophesying just such a fall. Naturally enough it has not served as a stimulus to demand, inasmuch as no one is particularly anxious to buy upon a falling market.

Local crushers are not satisfied with the position occupied by Western oil on Eastern markets. With almost common consent, they profess to have withdrawn therefrom, and while they admit a decline to 47 cents in New York, they place the responsibility upon the shoulders of producers east of this meridian of longitude. On the other hand, it is stoutly maintained by certain parties here that one Chicago concern has sold oil in Philadelphia at 45 cents and in New York at 46@47 cents for cash and September delivery. The general sentiment of the trade here is deprecatory of any such policy.

FLAXSEED.

The market for the week has closed firmer and higher to-day, the ruling price having been $1.14 for No. 1 seed. Reported sales on the floor of 'Change have aggregated 44½ cars of No. 1, 2 cars of rejected and one of no grade. The market for cash seed opened at $1 10 on Monday, advanced to $1 12 on Friday and closed at $1 14 to-day. The cause of the firmness—rather unexpected—is to be found in the fact that receipts have been rather lighter than had been anticipated. The inspector reports arrivals of 112 cars, of which 98 cars were graded as No, 1, 7 as rejected, and 7 as no grade. The official figures of the secretary of the board are shown in the following tabls.

	Receipts.		Shipments.	
	1888.	1887.	1888.	1887.
Monday	....	19,744	429	60,708
Tuesday	1,678	27,782	2,370	....
Wednesday	....	31,804	3,727	25,565
Thursday	10,327	43,485	17,664	....
Friday	9,401	37,711	5,663	1,037
Saturday	10,200	24,006	4,484	....
Total	31,606	184,532	34,327	87,310
Last week	9,601	96,998	9,210	53,854

At the beginning of the week there were in store in public elevators 50,607 bushels as against 54,427 bushels one week before, and 61,866 on the same date in 1887.

The general tone of the market has been steady and the quality of new seed arriving has been exceptionally good. While offerings have been light, it must be remembered that a fair proportion of the seed arriving has been coming in on contract. While there has been some shipping inquiry, local crushers have been the freest buyers.

The speculative market, to judge from apparent sales, has been firm at a gradual advance. Reported transactions have aggregated 24,500 bushels of September, 33,000 bushels of August, 15,000 of October, 6,000 December and 1,500 year delivery. August has fluctuated between $1 09 and $1 15, opening at $1 09 on Monday and closing to-day at the outside. September opened at $1 06 and closed at $1 10, the highest price paid having been on Thursday, when this delivery brought $1 10. October has sold at $1 08, there having been but one transaction. December ranged from $1 08 to $1 12½ and closed to-day at the highest figures of the week. Year delivery was sold (1,000 bush.) on Tuesday at $1.07½ and to-day (500 bush.) at $1.14. Speaking of the speculative market as a whole it may be said that there were more b'ds than offerings.

Crop reports are favorable. Harvesting may have been hindered by unexpected rains, but it is difficult to reconcile higher prices for cash seed with light offerings for futures except upon the hypothesis that there is a justifiable confidence in the magnitude of future receipts. Other explanatory theories are advanced, but later advices from the flax districts still foreshadow an enormous crop.

OILS.

Prices for strictly prime lard oil remain at about the same figures as those of a week ago, but inferior grades have not fulfilled the expectation of those sanguine prophets who prognosticated that they would be drawn upward by sheer force of sympathy. While lard during the week has manifested no upward tendency, August delivery having been particularly dull, there has been no noteworthy decline and the market for lard oil closes steady to firm. Pressers are not resorting to overproduction in consequence, and there is no palpable reason for anticipating a decline. Stearine is in only normal request here, and there is seemingly no inducement to overstock the market. Consequently the feeling is one of confidence and "a stiff upper lip" is being generally maintained. The movement is fully up to expectation of local pressers, and shipments toward the seaboard have surpassed expectation.

A change in the personnel of the committee to investigate stocks of lard in this market was made by the directors of the Board of Trade yesterday, John G. Beazley and A. S. White taking the place, respectively, of C. J. Singer and Henry Botsford. The investigation will at once be prosecuted to completion.

Stocks of cotton oil are reported as rather light and brokers characterize the market as firmer. The recent meeting of the Cotton Oil Trust, of which the REPORTER gave so full an account, has apparently exerted a healthful influence upon the market.

Private advices from Holland report a strong feeling in the oleo market from abroad with more activity and a better demand noticeable throughout the week. Exportations from this point since last Saturday have aggregated some 1,600 tierces. Arrivals at Rotterdam and other Dutch ports are estimated to exceed 1,900 tierces, while sales will probably foot up about 2,500 tierces. Chicago melters regard the European market as firm, the demand for extra grades being light, but the consnmptive inquiry for cheaper oil being good.

PAINTS.

Considered as a whole, the week has been unsatisfactory to the trade, although here and there the volume of sales has rather exceeded that of the same week last year. Altogether, business in this line is to use an expression pertaining to western slang, "between hay and grass;" the spring and summer trade being practically over and the agricultural implement men not yet having made their appearance as solicitors of bids. Among jobbers there is apparently a cynicism so cold as to be agreeable on a warm day when one mentions either linseed oil or white lead.

DRUGS.

Trade for the week (and indeed during the first one-third of the month) has been remarkably brisk, and jobbers are disposed to indulge in self-gratulation over the prospect for fall business. Opium is not quite so firm as it was a week ago, while a good demand for quinine keeps that staple decidedly firm. The only noteworthy change in prices in this market has been an advance of 25c in cubebs, which the trade is inclined to regard as legitimate in view of short stocks and the inferior quality of the berries on sale. Country retailers visiting Chicago report business as brisk and increasing, with every prospect of an excellent fall trade. Collections are made without difficulty, and the outlook for the future is bright.

CALUMET.

MISCELLANEOUS.

National Wholesale Druggists' Association Convention.

Secretary Merriam has issued his circular embodying the outlines of the programme for the Saratoga meeting of the N. W. D. A., which was published in detail in the last issue of the REPORTER. He also inclosed to each member a circular stating the course necessary to be pursued in order to take advantage of the reduced rates offered by the railroads. This simply requires the filling out of a blank certificate, which can be obtained from Mr. Merriam by all who intend going, and which must be signed by the agent from whom the ticket for Saratoga is obtained. All persons accompanying members of the Association, whether members themselves or not, are permitted to avail themselves of these reduced rates, and also of the special hotel rates, and other advantages enjoyed by the members while at Saratoga. The attendance promises to be large, and will include an unusually large number of ladies.

Window Glass Manufacturers to Meet.

A press despatch from Pittsburg dated Aug. 14th says the window glass manufacturers will hold an important meeting to-day at the Union Pacific Hotel in Chicago. Representatives from the firms in the United States will be in attendance, and the result of the meeting is being closely watched by glass workers. The time of resuming work at all the factories in the Manufacturers' Association will be settled definitely. It is said that none of the western manufacturers want to start up before October 1, while some of those in the East want to resume on September 1 The former claim that the market is now overstocked, and to begin manufacturing before October 1 would be attended by the result which always follows overproduction.

At the meeting action will also be taken in regard to the jobbers who are charged with cutting prices. It is probable that the firms will enter into an agreement not to supply any jobber with glass who undersells the market. The price of window glass will probably be slightly reduced. The reason assigned for taking this step is to attempt to increase the sales and thereby dispose of the stock on hand before work is resumed.

The Soap Combination.

The Buffalo *Courier* notices the published statement that "the manufacture of soap is an industry in which no combination to regulate prices is possible, and none is contemplated," and adds:

"A reporter of the *Courier* called upon a large manufacturer of soap, and asked him if he knew anything regarding the proposed combination in the soap business which has been mentioned in the papers.

" 'Certainly,' 'a movement has been on foot nearly a month among the larger soap factories in the country, which had its origin at the East, for the formation, not of a trust, as trusts are generally understood, but for a combination among soap manufacturers to remedy many of the evils of the trade, to look after the freight rates, and to establish a regular price on standard goods, as well as a scale of prices on cheaper goods, according to their quality, and the amount of fatty matter and rosin contained in them."

"Could you say what the evils are that it is proposed to remedy, and their remedies?"

" 'Yes; one is the unlimited number of brands of soap which each manufacturer puts on the market. It is proposed to limit them to a certain quantity, say about ten for each firm—an object which will please all wholesale and retail merchants immensely. Second, adulteration in soap is to be done away with entirely, and as each brand is to be rated and priced according to its quality, a merchant can by the price quickly judge how the goods offered him rank, and what their quality is. Third, all soaps to be cut full weight, according to the weight they are represented to be. There are, of course, other evils of more or less importance, but these are the principal ones.'

" 'If a combination be effected, how would you hold the members together?'

" 'Well, the idea is that each manufacturer deposits with the treasurer of the combination a certain sum of money, proportionate to his business, which would be held for the purpose of compelling good faith. If any article of the agreement were broken a fine would be levied, which would be taken out of this money and divided among the other factories according to the amount of their business.'

" 'Do you think there is any prospect of effecting such a combination?'

" 'Well, I confess I don't know. Perhaps there is no article manufactured in the country among the manufacturers of which there is such keen competition, which competition has led to all the evils the trade labors under, and there is, undoubtedly, less brotherhood among the soap manufacturers than among any other class of manufacturers in existence. I think, however, that there are few, if any, manufacturers but admit the necessity for many reforms, and as strong efforts are being made to reconcile the various interests, it is not unlikely that it may be successful. If it would accomplish the reform mentioned above, it would be a good thing for manufacturers, would be a wonderful benefit to merchants handling the goods thus manufactured, and by giving pure goods of full weight to the consumers it would be a great benefit to them also.' "

De Pauw's Glassworks.

The work of doubling the capacity of De Pauw's plate glass factory at New Albany, Ind., which has been in progress for two years, was entirely completed a few days since, and it is now prepared to keep up with the liberal orders which the management has been favored with for many years, notwithstanding the fact that it has never been found necessary to employ a single traveling man. This is certainly a remarkable tribute to the quality of the goods manufactured by this popular concern. The leading specialty is polished and rough plate glass, which has a wide sale. The trade in single and double strength window glass has also developed to a large extent, and the other departments are likewise in a very prosperous condition, which shows what experience, ability and well directed energy backed by ample capital, can accomplish.

The fortunate customers of De Pauw's American Plate Glass Works are being made the recipients of handsome celluloid tablets and convenient blank books for the pocket with celluloid covers. The front cover of each contains a fine portrait of Mr. W. C. De Pauw and the information that the capacity of the works is 2,000,000 feet of plate glass, 200,000 boxes of window glass and 30,000 gross of fruit jars.

Alcohol and the Arts.

The Home Market Club favors free alcohol for scientific, manufacturing or art purposes, and framed its revenue reduction bill with this in view. Last week the following letter, bearing on the subject, was received from Senator Aldrich: "The abolition of the tax on alcohol used in the arts will have a beneficial effect on a very large number of industries. In many of these the cost of production will be very largely lessened without decreasing the sum paid for wages. In many American producers will be better able to compete with foreign producers who may enjoy the benefits of free alcohol. I believe that no change could be made in our revenue laws which would prove so generally satisfactory to our people without being detrimental to any."

Aniline Dyes Among the Chinese.

The imports of aniline dyes at Chinkiang, China, have increased in value from £8,657 in 1886 to £9,945 in 1887, and are used to dye the finer kinds of cotton cloth. The colors derived from them soon fade, and they compare unfavorably in this respect with native dyes. Indigo is still grown in increasing quantities every year, and hardly suffices to supply the demand for dyeing the larger imports of foreign shirtings. The aniline dyes come chiefly from Germany—Lombke, Gipferich, Baumfeldt, and Offenbach being the chief names. Manufacturers who could impart more permanency to their dyes would obtain a large sale in Chinkiang.

The Alcohol Question in Spain.

There has been a good deal of trouble in Barcelona last year about the question of the importation of foreign alcohol. Those who desired the introduction declared that it was necessary to the fortifying of their wines, as they could not distil, for many reasons, Spanish wines into spirits to elaborate the weaker and deteriorated wine. Those who opposed the introduction denounced the German alcohol as poisonous and deleterious to health and morals, but all agreed that the stuff introduced generally was rubbish and unfit for drinking purposes. The controversy continued for months, when a royal order was promulgated that all spirits imported into Spain were to be subjected to strict examination, and those found not properly rectified should be rendered unfit for mixing with wines.

Annual Meeting of the National Linseed Oil Trust.

[Special correspon lence of REPORTER.]

CHICAGO, August 11.

The first annual meeting of this corporation was held in Chicago last week. At noon on Wednesday, the 8th inst., the meeting was called to order by Mr. Alexander Eusten, the president of the organization. The attendance of certificate holders was large. A short address was read by the presiding officer, in which he congratulated the holders of certificates upon their connection with a body so conservative in its aims and whose management had demonstrated the safety of its commercial conduct. He briefly refuted the fallacies which had found a lodgment in the public mind regarding trusts, calling attention to the fact that such fallacies were founded upon misconception and that the underlying principle of such combinations was not fraught with danger either to the business interests of the country or to the welfare of consumers. He pointed out that the aim of the linseed oil trust was not to check healthful competition, but to direct it into such channels that an indiscriminate and ruinous rivalry might be averted. Both manufacturers and dealers had felt the evils attendant upon over-production, yet the National Linseed Trust sought to control neither production nor prices. Its belief was that by concert of action on the part of producers there would result an economy in the cost of manufacture which might serve rather as a stimulus to legitimate competition, while protecting the true interests of the consumer. At the same time there would be no fictitious inducements held out to capital to embark in enterprises which might ultimately prove unprofitable.

Following the address of the President came the report of the Treasurer, H. S. Grove, in which the financial condition of the Trust was detailed and which was duly approved.

Balloting for three trustees succeeded, resulting in the election of C. D. Clere, of Iowa City: A. C. Abbott, of Marshaltown, Iowa, and J. A. Willard, of Mankato, Minn. None of the officers of the trust were changed.

A resolution was introduced and adopted recommending that the trustees declare a dividend of $1 per share, such action being justified ty the Treasurer's statement.

A prominent certificate holder stated that he had had opportunity during the past year to become conversant with the work accomplished by the Trustees, and offered the following resolution, which was adopted without dissent:

Resolved, That the thanks of the certificate holders be hereby tendered to the Board of Trustees for the able and business-like manner in which the affairs of the trust have been administered the past year.

After the adoption of this resolution the meeting adjourned.

The National Linseed Oil Company also held its annual election of officers in Chicago last week. The president, Mr. H. S. Grove, who had so efficiently and satisfactorily discharged the duties of his position during the past year, declining a re-election, the vacancy thus created was filled by the choice of Mr. R. D. Hubbard, who will serve in that capacity during the ensuing year. The other officers of the company remain unchanged. X.

A Convention of the Paint Trade.

Pursuant to a resolution passed at the meeting of the Executive Committee of the New York Paint, Oil and Varnish Club, on Wednesday last, the secretary has issued the following circular letter to the various organizations of a similar character in the United States:

NEW YORK, August 8, 1888.

"The National Wholesale Druggists' Association hold their convention at Saratoga September 11-14, and at the meeting of our Executive Committee held this P. M., I was instructed to write to you (and the secretaries of the various clubs), to ask if your club would appoint three delegates to meet delegates from other clubs at Saratoga to confer about credits and other matters of importance, that we might arrive at a perfect understanding. Please advise me at your earliest convenience if your club will join us in thus meeting together for friendly discussion, and if possible send me names of your delegates, and oblige,

"W. R. TEMPLETON, Secretary,
"New York Paint, Oil and Varnish Club."

On Thursday, the president of the New England Club issued a call for a special meeting of that body, which was held on the 13th inst. The circular referred to the proposed convention of delegates from the various clubs at Saratoga, commending the idea and closing with the following: "There can be a full and free discussion of the matter of credits, including any scheme presented for the prevention of losses through dishonest debtors; possibly, also, this proposed meeting may lead to the formation of a national paint and oil association at some future day."

At the meeting of the New England Club, Monday, President Gould appointed the following named gentlemen as delegates to the Saratoga conference: Messrs. Charles Richardson, John D. Morton and John P. May. Mr. Richardson being unable to serve, the club unanimously elected their president, Mr. Geo. L. Gould, in his stead.

The Truth About Pithole.

[Special correspondence of the REPORTER.]

OIL CITY, Aug. 13, 1888.

The newspapers are publishing a lot of letters about the new development at Pithole. They are so contradictory and misleading that the petroleum trade outside of the oil region must look upon the statements as the result of the writer's imagination. The fact is that there is no new feature in the business at Pithole, but there is a new development of the most interesting kind on the high lands between Pithole and Pleasantville, some five miles apart. The discovery of amber oil in paying quantities in a rock above the Venango second sand, and of 51 gravity is a fact; and it upsets all former theories of the geologists; that the deeper the drilling the higher the gravity of the oil. It also proves that the best geological talent employ by the State at large expense for forty years, may overlook an important fact, and that thousands of wells may be drilled through a strata of oil bearing rock, containing on oil entirely different in color and gravity without being detected in the mixture of oil, water, mud and sand brought to the suface by the sand pump. There is no man employed on the geological survey of greater ability, honesty or integrity than J. S. Carle. Yet it is a fact that he lives at Pleasantville, where this discovery was made by a man who is not scientific; in fact only a driller of wells and pumper of oil. A. P. Dale drilled some wells in the southern end of the county and discovered an oil bearing rock above the second sand; it is divided from it by a few feet of slate. This rock produced an oil lighter in color than the second and third sand. As the wells were located in Red Valley it was called the Red Valley sand rock. The wells would start at twenty, thirty and forty barrels a day but soon run down to three to five barrels. The rods and tubing paraffined up rapidly. An old pumper suggested that they try a leaky valve. That is an arrangement by which part of the oil in the tubing is allowed to escape from the tubing and treakle down the walls of the well and dissolve the paraffine. This was found to improve the production so much that it was adopted. When Black discovered the Red Valley sand near Pleasantville he thought it would be a better plan to keep the sand rock covered with the oil. To do this, the tubing is run to the bottom of the well and the lower joint of pipe is perforated by a large number of small holes to let the fluid into the pipe. Then the pump barrel is placed thirty-three feet above the top of the Red Valley sand. As it will only draw thirty feet by atmospheric pressure, the oil is always covering the rock in the well; the pipe is run to the bottom for the purpose of drawing the water and heavier oils from the well; otherwise they would eventually fill the well to a height of thirty feet from the pump barrel.

This new arrangement, which is really a very valuable discovery, is found to work perfectly and the paraffine does not deposit on the rock or tubing in the well and seal it up as formerly. If the wells are tubed and pumped in the old way they will run down from thirty barrels a day to two barrels. Amber colored oil has been pumped from wells for years; notably at Smith's Ferry on the Ohio river and other places; but it was always supposed to come from the second or third Venango county sand rock. The green or black oil of the Pleasantville region pumped for many years is 42 to 47 gravity, and it was never suspected that there existed an oil of 51 gravity above these rocks, another feature of this amber oil field is that there is little or no gas, whereas in other fields where oil of 47 to 52 gravity is found it is always accompanied with high gas pressure and abundant gas.

The Pleasantville find will not increase the production materially because the old wells in other parts of the oil region are failing so much that when the shut in ends November 1 the quantity to be released will be little or none. These amber oil wells are only shallow wells and none of them pump over thirty barrels per day after the first month. Petroleum costs above one dollar per barrel to produce it in all Pennsylvania territory and until it reaches that price and promises to remain there the drill will not be used to increase production. The producers believe that next year they will get a reasonable profit on their oil and will never again tank oil above ground at large expense when they can leave it in the earth without cost. WM. L. LAY.

Canada Oil Report.

The quantity of the oleaginous changing hands during the last week has been very small. Prices for refined, however, are very difficult to make out. We are just commencing on the season of the year when buyers from the east are prepared to contract for future delivery. This year buyers are thoroughly educated and know what they are doing as to their future purchases. Agents have been scattered all over the country selling oil for immediate or future delivery for what they could contract for, and as far as the oil exchange market is concerned a marked change has demonstrated itself to lower prices during the last week. The market has been under the control of the professional operators, and so long as they are able to retain the power to move the prices up or down, we may expect to see sudden fluctuations as their interests prompt them either to advance or depress the market. Another notable feature of the week under review has been the large decrease in the sales from the raw material. The market has shown little animation, and the tendency appears to be towards a season of dullness such as the operators have been familiar with for some time past. There is still an absence of interest on the part of outside speculators, and these will doubtless stand aloof so long as it is patent that the market is in the hands of the professionals. Nothing of a startling character has been received from the producing district during the past week, but quite a number of wells are being drilled. *Petrolea Topic, Aug. 10.*

Varnish in China.

Varnish, used to polish furniture and the interior of houses, takes the place with the rich of wood oil among the poor of China. It costs 14s. a picul, and the imports have increased from 181,000 lbs. to 210,577 lbs. Prices have been high this year as it has been largely in demand for coffins, which the Chinese think it lucky to make in a year with an inter-calary month. It is produced in Yunnan, Kwei-Chow, Shensi, and Sze-Chuan, and is made from the sap of Huai trees. The sap exudes at the rate of a picul a day per tree. The best comes from Yunnan; it will not keep over a year, when it becomes too liquid for use.

Fancy Soaps.

Fancy soaps, which are made in great variety for the toilet, are usually scented with some aromatic oils. For this branch of the trade the ordinary commercial soaps are used, after undergoing a process of refinement, or a soap is specially made for the purpose from almond oil, or the like. Much taste is shown by the best London makers in the selection and combination of the perfumes, which, along with the coloring matters, such as vermilion, yellow ocher, aniline, etc., are usually boiled up with the soap, says the *Technical Educator*. To facilitate this operation, as a well-dried soap does not readily melt, it is usually cut up into fine shavings, and after boiling is well worked under rollers until it presents a uniform appearance. If the soap is intended to be highly scented, or very expensive perfumes are to be employed, the cold process is adopted, as much of the strength of the scent is lost by boiling. In this case the soap is shreded as before, and the perfume and coloring matters well amalgamated with it by being worked in a mortar with a pestle. It is then divided into lumps, and roughly moulded with the hand into something of the shape it it finally to assume. After being left on a rack to dry for about a week, it is pressed into a mould which imparts to the cake the form and device which may be required, and when taken out the edges are trimmed and the surface polished with the hand.

The Soaps used in China.

The first importation of foreign soap (21,259 boxes), has just arrived at Chinkiang, China; this is very gratifying, and there are ample opportunities in China for a further extension of this import. The Chinese only use of their own manufacture an alkaline earth and soap beans. The imports of native soap have increased from 357,497 lbs. in 1886 to 1,318,094 lbs. in 1887. It is made from an efflorescence which appears on the ground in the early morning, and comes from the country in the vicinity of the Yellow River breach. Rain destroys it, and the unusually dry weather has been favorable to its production. The sun also melts it, and it must be gathered in the very early morning. It is after collection, boiled for some time, the scum removed, the useful part sinking to the bottom; the water is then drained off, and the residue mixed with alkali. This is then placed in boxes, and is ready for sale; it is chiefly used to wash clothes; soap beans, the pods of the tsao-ko tree, being preferred for the hands.

Imports and Exports.

Below we give a summary statement of the imports and exports of the United States for the twelve months ending June 30, 1888. We also give the same information for the corresponding period of 1887, in order that a comparison may be made between the two years The table is corrected to Aug. 3, 1888:

IMPORTS OF MERCHANDISE.

FREE.	1888.	1887.
Asphaltum or bitumen, crude	lbs 81,346,914	55,105,035
Alizarine, natural or artificial	lbs 2,454,243	2,095,212
Argol, or crude tartar, and argol dust	lbs 17,226,491	22,024,768
Barks, cinchona or other used in the manufacture of quinia	lbs 2,801,443	4,788,044
Cochineal	lbs 181,495	492,304
Logwood in sticks	tons 77,697	59,265
All other dyewoods	val $136,204	$284,741
Gum, arabic	lbs 915,799	467,782
Gum camphor, crude	lbs 2,779,719	2,857,222
Cutch and gambier	lbs 36,896,670	25,508,212
Shellac	lbs 4,206,850	4,722,538
All other gums and gum resins	lbs 20,496,860	16,582,619
Indigo	lbs 3,114,279	3,469,182
Lime, chloride of or Bbleaching powder	lbs 95,318,471	103,067,827
Licorice root	lbs 49,151,664	79,603,855
Mineral waters, all not artificial	gls 1,800,803	1,834,411
Potash, muriate of	lbs 56,095,179	38,569,814
Quinia, sulphate of, salts of and cinchonidia	oz 1,628,414	2,753,962
Soda, nitrate of	lbs178,954,024	172,174,889
Sulphur or brimstone, crude	tons 99,253	97,283
Vanilla beans	lbs 145,379	137,439
All other drugs, chemicals and dyes	val $4,035,470	$3,355 714
Corkwood, or cork-bark, unmanufactured	val $1,078,802	$1,239,247
Guano	tons 8,042	12,804
Phosphates, crude or native, for fertilizing purposes	tons 19,317	26,552
All other fertilizers	val $661,374	$1,182,187
Oils, fixed or expre'd	lbs 21,158,638	18,268,778
Oils, volatile or essential	lbs 1,524,680	1,492,041
Plaster of Paris, or sulphate of lime, unground	tons 131,606	146,963
Plumbago	cwt 181,329	169,021
Nutmegs	lbs 1,248,066	1,288,559
Pepper	lbs 12,949,599	13,255,161
All other spices	lbs 13,317,870	15,769,381
DUTIABLE.		
Bristles	lbs 1,114,214	1,196,242
Brushes	val $639,146	$548,516
Cement	bbls 2,016,990	1,079,944
Coal-tar colors & dyes	val $1,839,678	$1,540,067
Glycerine	lbs 10,060,719	12,765,072
Logwood and other dyewoods, extract and decoctions of	lbs 2,391,377	3,396,467
Opium, crude	lbs 447,920	668,263
Potash, nitrate of, or saltpeter, crude	lbs 7,983,812	10,313,866
Soda, bicarbonate of	lbs 2,020,643	2,548,580
Soda, carbonate, including sal soda and soda ash	lbs.284,580,151	287,704,468
Soda, caustic	lbs 89,321,447	84,689,458
Soda, all other salts of	lbs 17,609,223	15,739,772
Sumac, ground	lbs 13,456,563	16,127,445
All other chemicals and drugs	val $3,800,278	$3,399,726
Clay of all kinds, including china clay or kaolin	tons 46,551	38,007
Cosmetics, perfumery, &c	val $361,483	$385,362
Glass and Glassware:		
Bottles, vials, demijohns, carboys and jars, empty or filled	val $815,562	$739,240
Cylinder, crown and common window, un-		

polished	lb	71,449,070	62,355,416
Cylinder and crown, polished—			
Unsilvered	sq. ft	422,004	272,520
Silvered	sq. ft		
Plate, fluted, rolled and rough	sq. ft	3,055,232	2,225,509
Unsilvered	sq. ft	3,955,201	3,967,876
Silvered	sq. ft	4,923,157	4,580,876
All other glass and glassware	val	$2,295,239	$2,144,547
Hops	lb	5,585,033	18,538,049
Lead and manufactures of	val	$668,705	$699,282
Oils:			
Whale and fish	gls	242,450	174,278
Other animal	gls	16,744	11,845
Mineral	gls	377,713	290,536
Olive	gls	654,036	744,766
Other vegetable	gls	650,822	498,086
Volatile or essential	lbs	602,421	122,266
Paints and colors	val	$1,244,320	$1,214,283
Seeds, linseed or flaxseed	bush	1,584,324	415,179
Soap, fancy perfumed and all descriptions of toilet	lbs	615,878	461,600
All other kinds soap	val	$234,351	$242,496
Spices, ground	lbs	760,279	667,624
Sponges	val	$358,104	$343,311

EXPORTS OF DOMESTIC MERCHANDISE.

Barks and extract of, for tanning	val	$254,204	$239,700
Blacking	val	$191,976	$195,197
Candles	lbs	1,502,179	1,859,370
Acids	val	$104,790	$91,627
Ashes, pot and pearl	lbs	512,563	889,502
Dyes and dyestuffs	val	$966,080	$786,623
Ginseng	lbs	309,964	330,831
Medicines, patent or proprietary	val	$1,545,514	$1,447,067
Roots, herbs and barks, n. e. s.	val	$137,756	$145,113
All other chemicals, dyes and medicines	val	$2,194,531	$2,145,265
Perfumery and cosmetics	val	$391,866	$322,059
Fertilizers	tons	194,149	220,792
Window glass	val	$11,022	$15,955
All other glass	val	$870,606	$867,249
Glucose or grape sugar	lbs	6,263,751	4,476,931
Glue	lbs	356,899	275,362
Grease, grease scraps, and all soap stock	val	$924,777	$849,908
Gunpowder	lbs	907,991	474,477
All other explosives	val	$525,270	$490,904
Hops	lbs	6,792,943	260,721
Lead and manufactures	val	$129,558	$141,104
Matches	val	$72,071	$77,379
Rosin	bbls	1,490,314	1,365,012
Tar	bbls	20,306	20,471
Turpentine & pitch	bbls	20,778	14,245
Oil cake and oil-cake meal	lbs	569,744,200	622,295,233
Oils.			
Lard	gls	931,616	975,163
Sperm	gls	136,092	157,169
Whale and fish	gls	1,360,399	1,348,804
Other animal	gls	617,801	570,376
Mineral, crude (including all natural oils, without regard to gravity)	gls	85,508,725	76,062,878
Mineral, refined or manufactured naphthas (including all lighter products of distillation)	gls	12,066,921	15,735,239
Illuminating	gls	456,427,221	480,845,811
Lubricating and heavy paraffine oil	gls	22,889,529	16,910,513
Residuum (including tar, and all others, from which the light bodies have been distilled)	bbs	32,601	77,353
Cottonseed	gls	4,458,597	4,067,138
Linseed	gls	92,134	119,840
Volatile or essential	val	$325,100	$309,460
Other vegetable oils	val	$56,890	$65,689
Paraffine and paraffine wax	lbs	36,005,522	31,546,223
ints and painters' colors	val	$492,799	$452,388
Tallow	lbs	92,483,052	63,278,403
Oleomargarine oil	lbs	30,146,595	45,712,985
Quicksilver	lbs	1,032,852	514,210
Cottonseed	lbs	5,918,555	11,232,141
Soap, toilet or fancy	val	$59,496	$57,751
Soap, all others	lbs	18,901,768	19,682,466
Spermaceti and spermaceti wax	lbs	226,576	336,222
Spices, ground or prepared	val	$36,270	$42,112
Alcohol	proof gls	329,317	1,264,513
Spirits turpentine	gls	10,585,942	10,209,883
Starch	lbs	5,755,806	7,408,386
Varnish	gls	143,926	96,427
Wax, bees'	lbs	78,070	90,350
Whalebone	lbs	318,056	173,452

EXPORTS OF FOREIGN MERCHANDISE.

FREE OF DUTY.

Alizarine, natural or artificial	lb	.....	.....
Argol, or crude tartar, and argol dust	lb	.....	.....
Barks — Cinchona, or other used in the manufacture of quinia	lb	2,712	5,252
Cochineal	lb	.....	606
Logwood	tons	90	1
All other dyewoods in sticks	val	.....	$219
Gum Arabic	lb	1,832	17,597
Gum camphor, crude	lb	22,197	320
Gum cutch and gambier	lb	35,283	35,136
Gum shellac	lb	513	2,248
All other gums and gum-resins	lb	195,967	160,370
Indigo	lb	2,470	20,098
Lime, chloride of, or bleaching powder	lb	15,000	11,611
Mineral waters, all not artificial	gls	2,534	597
Quinia, sulphate of, salts of, and cinchonidia	oz	5,098	162
Soda, nitrate of	lb	770,745	5,968,003
Sulphur, or brimstone, crude	tons	4	20
Vanilla beans	lb	11,281	1,568
All other chemical and drugs	val	$230,023	$213,406
Guano	tons	3	.....
All other fertilizers	val	$325	$1,041
Oils, fixed or expressed	lbs	1,640,143	3,931,446
Oils, volatile or essential	lbs	11,662	3,059
Plumbago	cwts	450	.....
Nutmegs	lbs	9,560	5,497
Pepper	lbs	665,468	479,750
All other spices	lbs	791,322	1,286,654
SUBJECT TO DUTY.			
Brushes	val	$658	$79
Cement	bbls	8,925	12,749
Coal tar colors and dyes	val	$15,059	$22,867
Glycerine	lbs	49,142	21,633
Logwood and other dyewoods, extracts and decoctions of	lbs	623,010	2,000
Opium, crude	lbs	33,303	64,168
Potash, nitrate of, or saltpeter, crude	lbs	363,733	484,850
Soda, bicarbonate of	lbs	30,718	64,781
Soda, carbonate, including sal soda and soda ash	lbs	34,821	127,123
Soda, caustic	lbs	1,708,545	1,070,178
Soda, all other salts of	lbs	6,800	13,449
Sumac, ground	lbs	45,044	89,526
All other chemicals and drugs	val	$37,345	$37,330
Perfumery, cosmetics, and all toilet preparations	val	$1,487	$2,708
Glass and Glassware:			
Bottles, vials, demijohns, carboys, and jars, empty or filled	val	$1,293	$2,305
Cylinder, crown, and common window glass, unpolished	lbs	6,895	24,869
Plate glass, fluted, rolled rough	sq feet	2,731	1,588
All other	val	$38,068	$6,469
Hops	lbs	408,643	437,279
Lead, and manufactures of	val	$328,606	$378,335
Oils:—			
Whale and fish	gls	2,709	3,691
Mineral	gls	2,000	.....
Oil, olive	gls	1,999	2,312
Oil, other vegetable	gls	33,008	31,465
Oil, volatile or essential	lbs	875	1,321
Paints and colors	val	$5,597	$2,236
Soap, fancy, perfumed	val	$15	$479
Soap, all toilet	val	$1,105	$2,232
Spices, ground	lbs	1,376	110
Sponges	val	$57,427	$58,790

Exports of Mineral Oils for July, 1888.

Mr. Wm. F. Switzler, Chief of the Bureau of Statistics, submits the following statement of the exports of domestic mineral oils from the United States for the month of July, 1888:

MINERAL, CRUDE.

(Including all natural oils, without regard to gravity.)

	Gallons.	Dollars.
Total for July, 1888	3,690,841	239,686
Total for July, 1887	4,055,133	255,769
Total for 7 months ending July 31, 1888	40,463,257	2,915,092
Total for 7 months ending July 31, 1887	35,984,667	2,297,451

NAPTHAS,

(Including all lighter products of distillation.)

	Gallons.	Dollars.
Total for July, 1888	956,073	79,855
Total for July, 1887	1,561,685	120,789
Total for 7 months ending July 31, 1888	5,530,802	442,749
Total for 7 months ending July 31, 1887	6,437,586	540,021

ILLUMINATING.

	Gallons.	Dollars.
Total for July, 1888	40,730,916	3,395,307
Total for July, 1887	42,123,259	3,208,709
Total for 7 months ending July 31, 1888	228,034,378	19,277,562
Total for 7 months ending July 31, 1887	200,709,798	20,100,536

LUBRICATING AND PARAFFINE OILS.

	Gallons.	Dollars.
Total for July, 1888	1,881,495	334,929
Total for July, 1887	1,599,555	249,950
Total for 7 months ending July 31, 1888	13,446,087	2,391,941
Total for 7 months ending July 31, 1887	10,786,900	1,891,859

RESIDUUM.

	Gallons.	Dollars.
Total for July, 1888	151,494	6,704
Total for July, 1887	216,174	9,946
Total for 7 months ending July 31, 1888	913,668	54,723
Total for 7 months ending July 31, 1887	2,599,422	122,127

TOTAL EXPORTS OF MINERAL OILS.

	Gallons.	Dollars.
Total for July, 1888	47,410,819	4,056,481
Total for July, 1887	49,525,306	3,845,163
Total for 7 months ending July 31, 1888	288,378,192	25,062,067
Total for 7 months ending July 31, 1887	316,512,373	24,951,994

Summaries of the Pipe Line Statements for July.

We present the official reports of the different pipe line companies for the month of July. Below will be found a statement of the total deliveries from each line in the months of June and July, 1888:

	June.	July.
Tidewater Pipe Co	249,061 07	228,122 84
Octave Oil Co	2,531 28	1,761 62
National Transit	1,468,792 66	1,693,857 88
Pittsburg Pipe Line	129,975 91	36,544 57
Macksburg Pipe Line	15,629 61	9,063 19
Southwest'n Pa., P. L.	12,841 24	8,498 19
West'n & Atlantic P. L.	80,034 42	112,490 32
Chas. Miller P. L.	11,027 42	14,990 04

COMPARATIVE STATEMENT OF SHIPMENTS

The following is a comparative statement of the deliveries during each month in the years 1885, 1886, 1887 and 1888:

	1885.	1886.	1887.	1888.
January	1,836,138	2,051,680	2,301,272	2,308,050
February	1,910,045	2,032,794	1,993,126	2,192,141
March	1,891,792	2,055,730	2,342,209	2,071,291
April	1,842,800	2,097,404	1,949,459	1,941,503
May	2,097,419	2,027,460	2,289,455	1,786,976
June	2,034,025	2,165,688	2,181,149	1,969,893
July	2,130,087	2,246,488	1,911,948	2,105,348
August	2,049,099	2,269,716	2,242,185	.....
Sept'mb'r	2,136,175	2,378,502	2,364,625	.....
October	2,075,259	2,712,364	2,610,986	.....
Nov'mb'r	1,895,011	2,433,501	2,520,745	.....
Dec'mb'r	2,188,254	2,542,389	2,640,839	.....
Total	24,086,104	27,013,716	27,347,998	.....

AVERAGE DAILY RUNS.

The following exhibits the average daily runs in each month in 1885, 1886, 1887 and 1888.

	1885.	1886.	1887.	1888.
January	53,298	58,186	63,827	36,723
February	54,997	57,741	64,392	43,187
March	54,089	62,555	65,012	42,726
April	60,290	66,366	66,065	44,509
May	57,141	70,675	65,509	46,751
June	59,907	79,545	64,399	47,920
July	57,299	78,935	60,460	44,688
August	54,778	75,502	60,326	....
September	58,718	79,620	62,964	....
October	63,122	77,533	62,494	....
November	60,903	72,146	40,242	....
December	63,270	69,166	41,918	....

STOCKS AND GROSS RECEIPTS.

The following exhibits the stock held by each of the pipe line companies at the close of July, together with the gross receipts from all sources during the month:

	Stocks.	Receipts.
Tidewater Pipe Co	871,673 12	118,632 37
Octave Oil Co	1,106 67	1,826 25
National Transit	21,792,659 29	951,809 23
Macksburg Pipe Line	411,221 76	21,784 85
Southwestern Pa. P. L.	473,548 21	161,761 20
Pittsburg Pipe Line	49,001 73	34,143 41
West'n & Atlantic P. L.	92,784 90	79,928 96
Chas. Miller, P. L.	16,928 73	15,467 66

Besides the receipts thus reported the Chas. P. Miller Pipe Line received from private tankage 3,490 32 bbls in addition,

The following table exhibits the stock of all pipe lines on hand at the close of each month in 1885, 1886, 1887 and 1888:

	1885.	1886.	1887.	1888.
Jan.	36,693,111	33,608,364	32,574,989	27,166,369
Feb.	36,316,806	33,180,057	32,473,612	26,330,579
March	36,067,905	33,053,140	32,232,310	25,637,531
April	36,021,746	32,946,618	32,358,442	25,084,034
May	35,460,127	33,059,909	32,077,638	24,787,503
June	35,103,278	33,305,775	31,924,828	24,393,045
July	34,887,330	33,492,230	32,014,326	23,708,924
Aug.	34,496,800	33,833,632	31,729,292	.....
Sept.	34,087,938	34,081,064	31,423,863	.....
Oct.	33,903,544	34,031,462	30,906,810	.....
Nov.	33,794,358	33,733,796	29,655,488	.....
Dec.	33,539,088	33,367,898	28,357,112	.....

NATIONAL TRANSIT CO.

Summary of report of National Transit Company at close of business July 31, 1888:

Gross stocks		25,472,902 96
Sediment and surplus		3,680,243 67
Acceptances, etc	16,728,217 82	
Credit balances	5,064,441 47	
Total liabilities		21,792,659 29
Receipts.		
Runs from wells	951,809 23	
Other receipts	112,895 73	
Total receipts		1,064,704 96
Shipments.		
Regular shipments	1,693,857 88	
Delivered to other lines	38,577 17	
Total deliveries		1,732,435 05

OUTSTANDING CERTIFICATES.

The following table exhibits the amount of oil in the National Transit represented by outstanding certificates and other vouchers at the close of each month in 1886, 1887 and 1888:

	1886.	1887.	1888.
Jan. 31	27,567,041 53	22,506,039 08	18,465,036 33
Feb. 28	26,694,037 53	22,401,039 08	17,602,036 33
March 31	26,686,037 53	22,472,039 08	17,572,036 33
April 30	25,679,037 53	22,428,036 33	17,013,288 67
May 31	25,570,037 53	22,091,036 33	16,978,097 17
June 30	24,869,259 78	21,697,036 33	16,968,982 78
July 31	25,241,961 38	20,911,036 33	16,728,217 82
Aug. 31	24,982,510 58	21,080,036 33	.....
Sept. 30	25,110,067 78	20,950,036 33	.....
Oct. 31	24,836,576 06	20,844,036 33	.....
Nov. 30	23,964,801 48	20,850,036 33	.....
Dec. 31	23,861,097 98	19,212,036 33	.....

TIDEWATER PIPE COMPANY.

Summary of report of Tidewarter Pipe Company at close of business July 31, 1888:

Gross stocks		1,060,639 91
Sediment and surplus		188,966 79
Acceptances, etc	489,000 00	
Credit balances	382,673 12	
Total liabilities		871,673 22
Receipts.		
Receipts from wells		118,632 37
Receipts from other lines		38,577 17
		157,209 54
Total Deliveries		
To refineries		228,122 84
To other parties		000,000 00
Total		228,122 84

SUMMARY OF STATEMENTS.

Statement made July 10, 1888, relating to business of various pipe lines for June, 1888.

	Total liabilities.	Gross stocks.	Sediment & surplus.	Runs from wells.	Other receipts.	Regular deliveries.	Other deliver's
National Transit Co.	22,464,021 61	26,151,000 91	3,687,579 30	975,061 78	174,086 72	1,468,702 66	44,448 81
Southwest Pa. P. Lines	396,636 36	448,786 41	52,150 05	172,822 06	.....	12,841 24	.....
The Macksburg P. Line Co.	398,530 10	420,651 00	22,110 90	21,510 00	.....	15,629 61	.....
	23,259,178 07	27,021,018 32	3,761,840 25	1,169,393 93	174,086 72	1,497,203 51	44,448 81

Statement made Aug. 10, 1888, relating to business of various pipe lines for July, 1888.

	Total liabilities.	Gross stocks.	Sediment & surplus.	Runs from wells.	Other receipts.	Regular deliveries.	Other deliver's
National Transit Co.	21,792,659 29	25,472,902 96	3,680,243 67	951,809 23	112,895 73	1,693,857 88	38,577 17
Southwest Pa. P. Lines	473,548 21	564,372 62	90,824 41	161,761 20	.....	8,498 19	76,351 16
The Macksburg P. Line Co.	411,221 76	434,572 52	23,350 76	21,784 85	.....	9,063 19	.....
	22,677,429 26	26,471,848 10	3,794,418 84	1,135,355 28	112,895 73	1,711,419 26	114,928 33
Increase	.....	.....	.....	.....	.....	.....	.....
Decrease	581,748 81	549,170 22	32,578 59	.....	.....	214,175 75	70,479 50

The following table, exhibiting the condition of the Franklin and Buckeye pipe lines at the close of July, is entirely independent of other pipe line reports and is not counted in the stocks and averages reported above:

FRANKLIN PIPE CO.

	Runs.	Shipments.	Stocks.
January	4,586 92	7,134 43	16,032 55
February	6,516 59	1,860 88	20,288 26
March	7,445 57	2,585 91	25,547 92
April	6,845 16	1,850 99	30,542 09
May	6,397 86	5,312 53	31,627 42
June	7,060 60	5,958 00	32,730 02
July	6,511 01	2,265 04	36,975 99

BUCKEYE PIPE LINE CO.

Credit balances			7,038,702 33
Total liabilities			7,038,702 33
Gross stocks		7,282,087 55	
Sediment, etc		243,385 22	
Net stocks			7,038,702 33
Receipts, runs		896,034 00	
Other receipts		0,000 00	
Total receipts		896,034 00	
Deliveries, regular			185,014 42
Deliveries, other			42,692 61
Total deliveries			227,707 03

The English Petroleum Markets.

London—Unusual importance has been attached to the movements in this article during the month of July, both as regards its altered statistical position and also in reference to the rapid advance in the current value; and the trade must be prepared to face a state of affairs totally different from what they have been used to for a long time past. In the four weeks ended July 30 the landings of American and Russian Petroleum together were not more than 32,600 barrels, in contrast with the immense quantity of 107,900 barrels in the same period last year, and as the month's aggregate deliveries did not exceed those in 1887, the entire stock at the above-mentioned date was slightly diminished, whilst that in the previous year was augmented by 70,100 barrels, thus causing a comparative deficiency of 46,500 barrels to appear in lieu of the heavy surplus that existed a month ago. The sudden and complete change in the condition of the market has been equally remarkable, as since the beginning of July an increasing demand has prevailed, stimulated by strong speculative operations and rising rates of freight on th

other side, so that considerable sales have been effected at repeatedly advanced prices for all descriptions of burning oils. *American Refined* Petroleum at the date of our last report was quoted 5¼@6d for instant and forward delivery, but it was soon after wards worth ¼d per gallon more, and, excepting a temporary weakness, there has since been such a rally in quotations as to place them about 1d higher than those ruling at the end of June, the closing rates now being 6⅜@6¾d per gallon for present and 6⅜d@6½d for future (September to February) deliveries. Russian oil has fully participated in this rise, and after offering at 5@5¼d, has lately fetched 6d to 6⅛c per gallon. A still greater rebound has occurred in the value of American water-white oil, which is unobtainable below 8d to 9½d, according to brands, and Petroleum Spirit brings enhanced rates at 7¾d to 8¼d. Business in refined coal oil has also been looking up, and here there has been a mounting up in prices of ⅛d per gal. to 5½d and 5⅝d.

Petroleum oil in London for the thirty weeks ended July 30, with comparative stocks at that date:

	1888. Bbls.	1887. Bbls.	1886. Bbls.
LANDINGS.			
Petroleum oil	471,902	459,758	437,507
Crude oil	11,703	6,028	17,596
Petroleum spirit	16,959	17,870	19,738
DELIVERIES.			
Petroleum oil	417,437	391,683	366,080
Crude oil	9,928	7,399	22,746
Petroleum spirit	16,574	16,129	20,358
STOCKS.			
Petroleum oil	119,823	166,502	168,128
Crude oil	5,839	4,107	12,001
Petroleum spirit	6,898	2,288	2,178

Arrivals of petroleum oil, &c., in the United Kingdom during the six months ended July 31, viz.;—

PETROLEUM OIL—Bbls.

	London.	Liverpool.	Bristol.	Hull, etc.	Total.
1888	478,016	217,621	82,667	53,972	832,276
1887	430,582	194,657	81,275	40,747	756,261
1886	398,959	162,931	79,230	56,841	697,461

PETROLEUM SPIRIT—Bbls.

	London.	Liverpool.	Bristol	Total.
1888	20,436	11,169	....	31,605
1887	27,3 0	15,610	26,573	69,553
1886	33,281	8,699	3,815	45,795

During the same period as the above the imports of *Residuum* into London and Liverpool have been 6.969 barrels, against 250 barrels in the latter port alone in 1887, 17,585 barrels in 1886, and 47,309 barrels in 1885.

Liverpool.—During the month just closed the arrivals of petroleum into this port have again been extensive, and there is no doubt that a considerable addition has been made to the stocks on hand; so that, although we have no official returns to verify our statement, it may be taken as certain that the total quantity of petroleum oil now in warehouse is much heavier than it was at this time last year. In ordinary times the knowledge of this fact would have caused the market to visibly decline; but since about the middle of July very strong advices have been received from America, reporting a falling off in the production, and speaking of a rapid advance in freights to this side; and in consequence of this rather exciting news the market here has become quite buoyant. Not only have the trade operated more freely, but speculators have been active buyers, and large sales have been effected at improving rates. Holders of nearly all kinds of oil have been much benefited by this unlooked-for rise in value, which, at the close, is ¾d to 1d per gal. higher than it was a month back. *Refined Pennsylvanian*, which at the date of our last summary was offering at 6d per gal., is now selling at 6⅛ to 7d; and *Russian*, that at first could be had at 5¼d to 5½d, is at present held at 6d per gal. *Petroleum Spirit*, however, remains neglected.—*London Grocer, Aug. 4.*

NOTICES.

WANTED—A position as salesman in a paint or glue house.
Address,
A. L., care this paper.

FOR SALE CHEAP.—Factory in splendid location, ten miles from New York on East River and R. R. Steam power and buildings, mostly one story high, in good order, the latter covering over 18,000 square feet, with dock, switch to freight depot; abundant pure spring water, 130,000 square feet of ground. For particulars address,
W. B., P. O. box 1588,
New York.

PAINT STORE—Long lease, stock and fixtures, the most complete and best-located paint store down-town, this city; immediate delivery; can be bought at great bargain, on account of sickness. Persons desiring to engage in a profitable business should address for two days, "PAINT STORE," this paper.

WANTED—Manufacturers' agents in Eastern and Western cities to handle line of special machinery, which has a pronounced reputation. Address,
"MACHINERY,"
Care this paper.

GERMAN Chemist, age 28, experienced in the manufacture of oils, varnishes, colors (pulp colors), wants position, salary moderate.
Address, C. H., care this paper.

A COMPETENT Salesman in paints and oils is open for an engagement.
Address L. J.,
care of this office.

TO PAINT AND COLOR M'F'RS.
Advertiser desires a position as manager, assistant manager or superintendent. Good buyer and technical correspondent and experienced in all the details of the business, both office and factory.
Address "ALEXANDER,"
care this paper.

Great Bargain.

Lease stock and fixtures of model factory this city for manufacturing lubricating oils, etc., will be sold at sacrifice.
Address, "BARGAIN,"
Care this paper.

FOR SALE.—A process for removing the acidity from paint oils. Address,
AUSTEN & WILBER, Lock Box 127,
New Brunswick, N. J.

WANTED—A partner in a wholesale Drug business already established and doing a business of between $30,000 and $40,000 a year. The store contains a well assorted stock and fixtures, worth about $25,000, and is centrally situated in a beautiful city of 20,000 inhabitants, in a middle Western State. The advertiser will sell one half interest to a first class party, in order to extend the business. Address "DRUG PARTNERSHIP," care of this paper.

SITUATION wanted. Long experience in the manufacture of all petroleum products, compounds, lubricants and greases. Address "SUPERINTENDENT," care this paper.

FOR RENT!!!

"Water Power." "Water Power."

The nearest available water power to New York City, at Boonton, New Jersey.
Constant all the year round!!!
This magnificent water power will be leased in small or large quantities to suit the tenant. Suitable buildings erected for all kinds of manufacturing purposes. Splendid shipping facilities!!! On the line of Railroad and Canal. Only fifty minutes from New York City by tram. This power will be leased at a great reduction on steam.
Address, LORD ESTATE,
68 Wall Street, New York.

YOUNG MAN—Experienced in the purchase, sale and manufacture of heavy chemicals and fertilizing materials, now employed by large chemical firm desires to make a change. Best references furnished. No objection to traveling.
Address, "FERTILIZERS,"
care this paper."

R. & W. R. WALKER,
KAURI GUM MERCHANTS
Fort St., Auckland, New Zealand.
Cable address "Walnut," Auckland.
Bankers: The Bank of New Zealand,
A B C Code (4th edition) used.
CORRESPONDENCE SOLICITED.

ADAMANTA VARNISH GUM
For manufacture of durable and brilliant Varnishes, Japan, Enamel, &c.
Adamanta M'f'g. Co.,
17 MASON BUILDING, BOSTON.

ESTABLISHED 1862.
THE WEBB BLACK LEAD WORKS,
Office 99 Fulton St. Factory, Charlestown District.
Importers of and Dealers in CEYLON PLUMBAGO and GERMAN BLACK LEAD. We keep in Stock different grades of PURE CEYLON PLUMBAGO prepared for the manufacture of *Crucibles, Powder, Shot, Lubricants, Steam Packing, Stove Polish, and for Stove Manufacturers and Stove Dealers.* We have facilities for furnishing any grade or quantity desired. Also German Lead "Lump and Powdered" for Foundry Facings.
ROBERT WEBB & CO., - - - BOSTON, MASS

ESTABLISHED 1867. **Telegrams: "ELASTIKON," LIVERPOOL**
TO VARNISH MANUFACTURERS AND OTHERS.
FINEST PITCH
FOR VARNISH MAKING AND OTHER PURPOSES.
[This is a New Make of Pitch, and the very Finest Quality for Varnishes, &c.
Samples and Lowest Prices on Application to
J. R. PEACE & CO.
(Oil, Grease, Tallow & Pitch Merchants),
26 ALEXANDRA BUILDINGS, ORMOND STREET.
Correspondence Solicited. **LIVERPOOL, England.**

A. HITCHCOCK, President. GEORGE F. NEALE, Manager. C. W. BARNES, Treasurer.
CRYSTAL PLATE-GLASS CO.,
(CAPITAL, $1,500,000.)
MANUFACTURERS OF
POLISHED PLATE-GLASS,
SKYLIGHT GLASS, FLOORING GLASS.
ST. LOUIS, MO.
GILBERT S. KING, Agent, 102 Chambers St., NEW YORK.

W. & H. WALKER,

REFINERS OF

PURE COTTONSEED OILS,

MINERS' OILS,
WINTER AND SUMMER YELLOW COTTON OILS,
WINTER AND SUMMER WHITE COTTON OILS.
SALAD OILS A SPECIALTY.

ALSO MANUFACTURERS OF
SOAPS, STAR and ADAMANTINE CANDLES,
SAPONIFIED RED OIL, TALLOW OILS
and CRUDE GLYCERINE

Office and Works, PITTSBURGH, Pa.

S. P. SHOTTER & CO.,

Dealers in

SPIRITS TURPENTINE AND ROSIN,
TAR OIL. GUM THUS.
VENICE TURPENTINE.

ALL GRADES OF ROSIN OIL,

FOR

CURRIERS' OILS, LUBRICATING OILS,
PRINTING INK OILS, PAINT OILS.

We desire to call attention to our

Deodorized Rosin Oil,

Refined gravity 11 deg. and fire test 375 deg., guaranteed absolutely odorless.

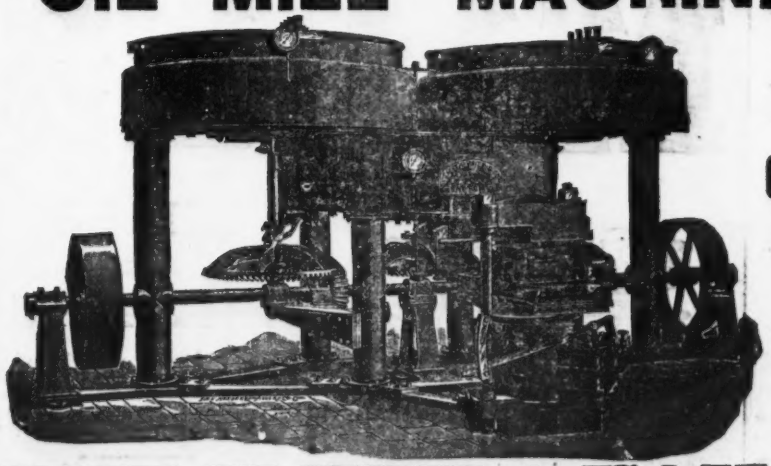
SEND FOR SAMPLES AND PRICES.

CHICAGO OFFICE:
56 Dearborn Street,

PRINCIPAL OFFICE:
Savannah, Ga.

NEW ORLEANS OFFICE: 54 MAGAZINE STREET.

OIL MILL MACHINERY A SPECIALTY.



OUR IMPROVED CHILLED CRUSHER ROLLS

Of Three, Four or Five Rolls to a Stack, for

COTTON and LINSEED Guaranteed the
Most complete Machines in this Market.

—ALSO—

Improved Presses, Steam Cake Formers, Triple Combination Heaters, Hydraulic Pressure Pumps, Cottonseed Hullers

THE SMITH & VAILE CO., DAYTON O.

Photo raphs Sent upon Application. Correspondence Solicited

Pennsylvania White Lead Co.,

ESTABLISHED 1844. INCORPORATED 1887.

—SUCCESSORS TO—

C. F. WELLS & CO., formerly B. A. Fahnestock & Co.,

PITTSBURGH, PENN.

MANUFACTURERS OF

FAHNESTOCK HASLETT & SCHWARTZ STRICTLY PURE WHITE LEAD PITTSBURGH, Pa.

ORIGINALLY B. A. FAHNESTOCK & CO. ESTAB. 1844 TRADE MARK REGISTERED 1873

Each package of the original B. A. FAHNESTOCK LEAD now bears a gilt tablet of which the above is a fac simile.

I. H. WILEY & CO., Boston, Mass.,
Wholesale Agents for New England.

DOLSON THIS PAINT is Manufactured of the BEST & PUREST MATERIAL AND WHITE LEAD.

TREMONT PAINT WORKS 31 BATTERYMARCH ST. BOSTON, MASS ESTABLISHED 1846

JOHN BRIGGS & CO.,

Proprietors of the Celebrated

Dolson White Lead.

Manufacturers of

PUTTY,

HOUSE, SHIP and COACH COLORS,

READY MIXED PAINT,
TINTED WHITE LEAD.

French & American Zincs,
WHITING, OCHRES, &c., &c.

M. C. BABCOCK. W. T. JENKINS.

BABCOCK VARNISH CO.

Manufacturers of

Coach Varnishes.

Factory: 156 Western Ave., Brighton Dist.

P. O. Box 2958, BOSTON MASS.

THE ULSTER LEAD CO.,

SAUGERTIES, ULSTER CO., N. Y.

THE ULSTER WHITE LEAD PERFECTLY PURE SAUGERTIES, N.Y. BATTELLE & RENWICK, N.Y.

Manufacturers of

Pure White Lead,

OFFICE

163 Front Street, New York,

AGENTS FOR NEW ENGLAND,
GOULD & COMPANY, Boston.

CARTER WHITE LEAD CO., OMAHA, NEB.

CARTER WHITE LEAD CO. STRICTLY PURE DIAMOND BRAND. TRADE MARK. WHITE LEAD. OMAHA, NEB.

$100 FORFEIT
IF THE
CARTER WHITE LEAD
DOES NOT COVER ONE-THIRD MORE SURFACE
THAN ANY OTHER WHITE
LEAD IN THE MARKET.

TO THE TRADE:

We take pleasure in informing you that we have opened an office and warehouse in New York City, at No. 5 Dutch Street, between Fulton and John Streets, where we shall carry a full stock of White Lead. This step has been necessitated by the increasing demand for our product by the trade in the South and East, requiring facilities for securing our Lead more promptly than it was possible for us to deliver it from Omaha. We request our friends in the Atlantic Coast States to send their orders in future to this office, where they will have prompt attention.

Prices and terms will be gladly given on application, also will send a small sample keg to parties desiring to make a test in a practical manner.

C. P. COGGESHALL,
Resident Agent.

CARTER WHITE LEAD CO.,
No. 5 Dutch Street, New York

Atlantic White Lead and Linseed Oil Co.

MANUFACTURERS OF

"Atlantic" White Pure Lead.

ATLANTIC WHITE LEAD WARRANTED PURE ROBERT. COLGATE & Co. TRADE MARK

Red Lead, Powdered and Flake Litharge, and Glass-House Lead.

ALSO

Refined Glass-House Lead

Especially adapted for the manufacture of the FINEST QUALITIES OF GLASS, and we guarantee its UNIFORMITY.

LINSEED OIL,

RAW, BOILED AND REFINED.

Also a Superior Grade especially adapted for Varnish Makers' use.

Address, ATLANTIC WHITE LEAD & LINSEED OIL CO.
287 Pearl Street, NEW YORK.

COLLIER WHITE LEAD AND OIL CO.,

ST. LOUIS, MO.,

MANUFACTURERS OF

Strictly Pure White Lead.

Red Lead and Litharge,
Lead Pipe, Sheet Lead, Bar Lead.
CHEMICAL SHEET LEAD,
Linseed and Castor Oils and Glaziers' Lead.

NATIONAL LINSEED OIL COMPANY,

Selling and Purchasing Agents for

Linseed Oil Manufacturers

PURE LINSEED OIL,

Raw, Boiled and Refined always on hand. Delivered in BARRELS or TANK CARS. OIL CAKE for Export and Domestic Use.

CORRESPONDENCE SOLICITED.

Office. 185 Dearborn Street, CHICAGO. ILL.

MAXWELL WHITE LEAD CO.,

MANUFACTURERS OF

Non-Poisonous White Lead

DRY AND IN OIL.

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71 BROADWAY, NEW YORK.

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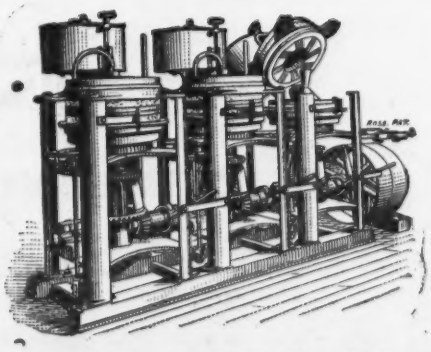
MILLS



Gang of Water Cooled, fine Color Mills.

MILLS
AND
MIXERS
For Grinding and Mixing
All Materials.

CHAS. ROSS, Jr.,
MANUFACTURER,
31 & 33 South Fifth Street,
Brooklyn, E. D., N. Y.

PAINT MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, August 14, 1888.

White Lead, Zinc, Etc.

The upward movement in pig lead prices has continued during the past week, owing to the buying of a large speculative dealer. Outside of his purchases, however, little lead has changed hands. The market closes at 4 40c bid and 4 42½c asked. Messrs. Everett & Post, write from Chicago, on the 11th inst: "Trade at this centre has been very large, upwards of 1,200 tons having been placed spot and future at from 4½@4 25c. Among local consumers there is a general desire to buy, but there is very little lead to be had now, either spot or future. Manufacturers report a very fair trade in the various lead products, and a promising outlook for the Fall. In sympathy with New York, and large buying orders for the speculators, the St. Louis market has steadily improved under sales of some 900 tons at prices ranging from 4 05c to 4 20c at close. The local trade are making larger inquiry for lead, and with apparent scarcity, the market is in a very firm condition."

The low prices for white lead seem to have stimulated the demand somewhat, local corroders generally reporting a good business, while from out of town the advices are of a brisk trade. The general quotations are 5⅜@5½c, less 2½%, though occasionally these figures are shaded in outside markets.

Trading in American oxide of zinc has been moderate, with the demand of a small jobbing nature, while the same has been supplied at the following unchanged rates, 4¼@4¾c, according to quality. French zincs have been stationary at 5⅞c for dry Antwerp red seal in bbls. of 220¼ lbs; Paris red seal 6⅜c, and 7⅛c for Paris green seal. Discounts on French are as follows: To buyers of 10 bbl. lots of one or assorted grades 1 %, 25 bbls 2 % and 50 bbls 4 %. No discount is allowed on less than 10-bbl lots, and discounts include brokerage.

Dry Colors.

REDS.

The market for the several pigments has continued without animation, the business being of limited proportions and strictly of a jobbing character. As regards quotations they are unchanged all along the line. English Venetian reds have been in full supply and in moderate demand, with the market steady at our former quotations of $1 45@1 50 for special brands in large lots, while other grades in smaller quantities are selling at $1 35 @1 45. Domestic kinds have sold fairly well for the season, but the market has had no appearance of activity, and the quantities taken have been for actual consumption. Quotations continue at 90c@$1 05 for ordinary grades, while some special brands are held at $1 20@1 25, according to maker and size of order.

Red lead and litharge continue to be sold in jobbing lots and old figures, but there have been no fresh features of interest during the week. Quotations for the former continue 6¼@6¾c, while for the latter 6@6¼c is asked.

Cobalt Oxide—Stocks of this article have been taken to a moderate degree, with nothing out of the ordinary reported. Previous figures rule at $2.90 for prepared and $2.50 for black.

Orange Mineral—There is a limited demand reported, which has been the case for several weeks, with values quoted at our previous rates, namely, 8½@9c for English, French at 8¾@9¼c, and German at 8½@9c. Domestic is in fair request and quoted firm at 8@8¼c, according to quantity and quality.

Carmine has been in moderate request, without special feature, and the market continues rather inanimate. No change in the ruling figures can be noted, values being quoted at $3 15 for round lots and $3 25@3 35 for smaller quantities as to size of order and style of packing, which figures were agreed upon by the manufacturers some time ago.

Quicksilver Vermilion—This article is reported steady, with the market quiet, and trading confined to small sales on the jobbing order. Our former quotations of 60c per pound for 100 pound kegs or over, and 61c for kegs of 30 to 50 pound continue to rule.

BLUES.

The market for blue pigments shows no change from last week. The business doing has been of small volume, and has attracted but little attention, and taken all in all, a quiet week must be reported. There have been no alterations in the ruling figures of a week ago, Prussian blues continuing to rule at 25@ 30c, according to quality, etc., while the asking figures for Chinese are 48½@50c. The other blues continue at our previous figures and are quoted with some degree of steadiness.

GREENS.

Green pigments have been in moderate demand in a jobbing way, but the market cannot be said to be active in any particular. Old figures are still quoted. On paris the situation is unchanged, and sales have been small, with the Association rates continuing as follows:

Arsenic, kegs or casks, 18¾c; kegs, 100 to 150 lbs, 19¼c; 14, 28 and 56 lb iron cans or boxes net weight only, 20¾c; 2 to 5 lb paper boxes, 20¾c; 1 lb paper boxes, 21¼c; ½ lb paper boxes, 23¾c; ¼ lb paper boxes, 25¼c. Free on board at New York, Philadelphia, Boston or Springfield, Mass. On all sales made by jobbers from points west of the Alleghanies and New York State and in the Southern States, not less than ½c per pound must be added. Terms, payable July 1st, 1888. Discount 6 per cent per annum for unexpired time. No brokerage or commission allowed to buyers. Rebates subject to rules and regulations made in conformity with the request of the National Wholesale Druggists' Association. To buyers of pure paris green, purchased from manufacturers who have conformed with the desire of the Druggists' Association, of 500 to 1,000 lbs during the season, ½c per lb; of 1,000 to 2,000 lbs, 1c per lb; of 2,000 to 4,000 lbs, 1½c per lb; of 4,000 to 10,000 lbs, 2c per lb; of 10,000 lbs and over, 2½c per lb. To buyers of 5 tons or over, at one time, an additional rebate of ¼c per lb will be allowed.

Miscellaneous.

Sulphate of Barytes—There has been a moderate business doing since we last wrote, the sales being in jobbing quantities entirely. Prices are unchanged, the following being quoted: $21 50 for special brands of imported, best No. 1 at $17 50@18 50, according to quantity: best off-colored grades at $15; No. 2 at $14 and No. 3 at $12 50.

Chalk is still in demand, with the stocks very scarce, and under the circumstances we are unable to report any business at the moment. On supplies to arrive the nominal quotation is $3 50 and on spot $4 00.

China Clay—The lower grades are reported

HARRISONS'

New Tuscan Red.

PITTSBURGH, PA., June 4, 1888.

Messrs. Harrison Bros. & Co., Phila-

Dear Sirs:

Have you any more of the same quality of New Tuscan Red as I received at last invoice? It is really the best article of its kind that I have used, and I would like to procure some more of the same quality.

Yours respectfully,

TITUS BERGER.

C. H. HOWELL & CO.,

Color Makers

99 Malden Lane, New York.

212 214 & 216 Race St., Phila, Pa

THE JEWETT WHITE LEAD CO.,

28 Burling Slip, NEW YORK.

JEWETT & SONS PERFECTLY PURE WHITE LEAD

J. A. DEAN & CO.,

LINSEED OIL,

AND

LINSEED CAKE.

181 *Front Street, New York*

The Beymer-Bauman Lead Co.,

CORRODERS AND MANUFACTURERS OF

WHITE LEAD,

ESTABLISHED 1867. DRY AND IN OIL.

BEYMER-BAUMAN & CO. STRICTLY PURE WHITE LEAD PITTSBURGH

Red Lead, Litharge & Orange Mineral

Of Superior Quality, made with Natural Gas Fuel rendering them Absolutely Free from Sulphur.

Office, Hamilton Building, 91 Fifth Avenue,

PITTSBURGH, PA.

INCORPORATED 1887. Boston Branch, DEXTER BROS., 57 Broad S

SUCCESSORS TO

Mordecai Lewis,

Established 1772.

We are prepared to supply the Trade promptly, with our long established and reliable brand of

Pure White Lead IN OIL,

unsurpassed for whiteness, fineness and body.

ALSO

JOHN T. LEWIS & BROS. WARRANTED PURE WHITE LEAD. PHILADA.

TRADE MARK.

Painters' Colors, Orange Mineral, Red Lead. and Litharge, Oxides

FOR

Varnish Maker and others

Requiring Pure Goods A SPECIALTY.

LINSEED OIL,

Raw, Boiled and Refined.

Anchor White Lead Co.,

CINCINNATI,

Pure White Lead.

RED LEAD, LITHARGE!

ANCHOR WHITE LEAD WORKS. GOSHORN BRO'S. PURE CINCINNATI, O.

Established 1828.

Agents for New England E. & F. KING & Co'y Boston

THE Bradley White Lead Company,

174 Front Street, BROOKLYN, N. Y.

BROOKLYN WHITE LEAD CO

ESTABLISHED 1825.

174 Front St., BROOKLYN, N. Y.

TRADE MARK

AGENTS FOR

Sissons Brothers & Co.,

HULL, ENG.,

Manufacturers

GOLDEN OCHRE, PARIS WHITE

PATENT DRYER, INDIAN RED,

VENETIAN RED TUSCAN RED AND COLORS.

Lee Smith & Co

59 Frankfort St., & 19, 21 & 23 Jacob St., N. Y.

AGENTS FOR

Henry Grace & Co.,

LONDON,

MANUFACTURERS OF

WHITE LEAD,

ETC.

PAINTS FOR GRINDERS' USE.

IMPORTERS OF

English White Lead, Ochres, Umbers, Siennas, Indian and Venetian Reds, and China Clay, V. M., French Zinc, Refined Yellow Beeswax.

We claim to have Our Paints for Grinders, of the Best Quality and Most Finely Praepared.

OXIDE of ZINC, REFINED and FLOATED BARYTES.

We are the only Parties in the United States who make

FLOATED BARYTES.

Page & Krausse M'f'g & Mining Co.,

410 ALMOND STREET, ST. LOUIS MO.

The Largest Works in the World.

Established 1849.

L. MARTIN & CO.,

226 Walnut St., Philadelphia, Pa., U. S. A.

2nd Floor Front.

MANUFACTURERS OF

LAMP BLACK

OF ALL GRADES,

AND

Patent Hydro-Carbon Gas Black.

SILVER MEDALS awarded by the Franklin Institute, 1852; Massachusetts Charitable Mechanics Association, Boston, 1860; American Institute, New York, 1867; and Franklin Institute, November, 1874; also Diploma and Medal by International Exhibition, Philadelphia, 1876.

Beware of Fraudulent Imitations. **All our Brands are Registered.**

Sole Agents and Correspondents for

THE PHŒNIX CARBON CO., LUDLOW AND KANE, PA.

E. H. MURDOCK & CO., CINCINNATI, O.

J. C. FINCK & CO.,

Manufacturers of

Water Floated Barytes

REFINED AND SECONDS.

Carbonate of Lime, Marble Dust,
Putty Powder, "VOLATILE" Soap Filler.

ST. LOUIS, MO.

Office, No. 101 Barton St. Works, on St. L., I. M. & S. R. R

CORRESPONDENCE SOLICITED.

THE J. H. MORLEY LEAD CO.,

ESTABLISHED 1862.

Corroders and Manufacturers

—OF—

WHITE LEAD,

RED LEAD AND LITHARGE.

CLEVELAND, OHIO.

INCORPORATED 1887.

AGENTS FOR NEW ENGLAND,

A. L. CUTLER & CO., Boston, Mass.

CHARLES MOSER. FRED. RENNER.

CHARLES MOSER & CO.,

59-63 Main St., CINCINNATI, O.

254 Pearl St. NEW YORK.

MANUFACTURERS OF

COLORS,

DRY, IN OIL AND JAPAN AND PULP.

ARTISTS' OIL COLORS

IN PATENT COLLAPSABLE TUBES.

White Lead and Zinc White

THE CELEBRATED

"Economy" Ready Mixed Paints,

QUICK DRYING CARRIAGE PAINTS,

ETC., ETC.

Agents for our Tube Colors

FOR THE PACIFIC STATES,

SULLIVAN, KELLY & CO., San Francisco, Cal.

GEO. F. TAYLOR,

General Commission Merchant and Broker in GLUE, Fertilizer Chemicals and Materials, Bone Black, Tallow, Etc.

134 Water Street, NEW YORK.

CARBON BLACK

MANUFACTURED BY

GODFREY L. CABOT, Worthington, Pa.

TRADE MARK.

DARKEST In Color. SOFTEST In Texture. LIGHTEST In Weight.

WRITE FOR SAMPLE.

TRADE MARK.

PAINT YOUR BUGGY FOR

ONE DOLLAR!

—WITH—

DETROIT WHITE LEAD WORKS'

CARRIAGE BLACK.

If you wish your gear in color, use our WINE COLOR, VERMILION, YELLOW or GREEN.

The original and best Ready-Mixed, Varnish Gloss,

CARRIAGE PAINTS.

Four Years Uninterrupted Success and not a Single Complaint

COLORS FOR GRINDERS AND MANUFACTURERS.

LOW PRICES. BEST QUALITY.

JOHN LUCAS & CO.,

Philadelphia: 141 & 142 N. 4th St. 322 to 330 Race St

WM. E LUCAS, 89 Maiden Lane New York.

scarce, and there is nothing due until next month. The trading has been moderate in a jobbing way, with quotations unaltered at the following figures: $18 for the best grades, $16 for the medium and $14 for the low grades. American is quoted at $10, with the market very weak and the demand limited.

Talc—Both foreign and American have ruled quiet since we last wrote, and but few sales are reported. For the former 1¼c is asked for a good quality of imported in large quantities, and as high as 1½c for smaller wants. The quotations for the latter, range from 1⅝c for the best quality, to ½@1c for inferior grades.

Terra Alba—There has been an arrival of 200 cks of French, which has eased the market somewhat and the quotations are now 75c ex store. The trading has not reached beyond small jobbing proportions. No. 2 is quoted at 45@50c.

Whiting is still in demand, with the factories working to their full capacity to execute orders. The scarcity of chalk is inconveniencing manufacturers to a considerable extent. The quotations are 47½@55c for commercial and 60@65c for gilders'.

Glues.

Our remarks, in the account of the position of the glue market last week, have called forth considerable comment among the trade, and by some it is thought they were directed against certain manufacturers. There was no such intention and in fact no reflection was cast upon any one. Only one name was mentioned to us and we were not aware that any other parties were concerned. The market during the week has been rather quiet, with nothing of special importance doing, and no further change in quotations can be noted. The whole situation is reviewed in our editorial columns.

Glass.

WINDOW GLASS.

There has been no notable change in the conditions governing the market for window glass. Business has slightly improved during the week, but it is too early yet to expect much activity. Despite the published statements of a large stock of American window glass—over 700,000 boxes—dealers here, generally, state that they find a small supply, and in some cases experience difficulty in filling orders. If any such surplus exists they think it must be in undesirable sizes. It is now reported that the factories will not start up before October 15th, and possibly the fires may not be lighted until a fortnight after that date. The date of starting is delayed, it is believed, in order to give dealers a chance to dispose of any surplus stock they may hold, so that when the fall season opens there may be nothing to interfere with a strong market and steady prices. Discounts on American remain 75 and 5% @ 75 and 10%, as to size of order. On French the discounts are 70, 10 and 5% to buyers of 25 boxes or less, with an extra discount of 5% on purchases of 26 to 200 boxes, and 10% on purchases of 201 boxes or more, provided that the purchases have been made during the calendar month. It is immaterial whether purchases are confined to one house or distributed among all the importers.

PLATE GLASS.

The market for plate glass is still much unsettled, and no steps have yet been taken looking to the regulation prices. The increasing production of American plate and the gradually diminishing field of the importers is pointed to by dealers as the cause of the demoralization of prices, but no remedy for this state of affairs seems to exist, except that tried before and found wanting—namely, combination. The trade seems to be averse to combinations, and a good deal of effort will be required to bring them into harmony on this point. The discounts nominally quoted are 50, 10&5% on plate measuring over 10 feet, and 60% on smaller sizes, but 60% on the former and 60&10% on the latter would be nearer the actual rates at which sales are making.

Arguments on Lead.

The *Financial and Mining Record* of this city and the *Herald-Democrat* of Leadville, have engaged in a warm controversy over the tariff on lead. The first named paper has the last words, and as its arguments contain important information for the trade, we publish them below:

The Leadville *Herald-Democrat* has recently sought in a series of articles, to impregnate its readers with the idea and the apprehension that their lead and kindred industries will be surely destroyed should the reduction of the duty on imported foreign lead from $40 to $25 per ton, come to pass as proposed by the Mills bill. To this end it has adduced as decisive, a long array of opinions to the same effect which were expressed in 1882 by a number of most worthy and intelligent gentlemen,

The starting point of our Leadville contemporary is that it was proposed in 1882, to only reduce the duty by six per cent., and yet the idea of even so slight a reduction excited the strenuous objections which it proceeded to quote at such length and with such weight of authority. Now, however, the *Herald-Democrat* goes on to say, it is proposed to reduce the duty as much as 37½ per cent. hence, so much greater, of course, must be the harm done by such a reduction of the duty on imported lead as from $40 to $25 per ton. In reaching this

(Continued on page 20.)

RUTHERFORD'S
METALLIC BROWN.
Guaranteed the Best Paint in the market for
TIN, IRON AND WOOD.

Contains No Grit.
Unequalled in Fineness.
For Dealers' and Grinders' Use.
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MINERS AND MANUFACTURERS,
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Established 1874.
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The Pioneer Paint Manufacturers of Western New York.

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Warranted Unequalled in Body, Strength and Fineness.
65 Per Cent. Iron and Free From Sulphur.
Grinds smoothly with 18 lbs. oil to 100 lbs. oxide.
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For coloring Mortar, Brick, Tile, etc., equal to Turkey and Florentine Red.
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(Sons of the late ROBERT PRINCE, Original Manufacturer.)
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Farrand, Williams & Co., Detroit,
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OFFICE OF
Prince's Metallic Paint Company
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PHILADELPHIA, July 9, 1888.
TO DEALERS IN PRINCE'S METALLIC PAINT:
We desire to state that the recent decision of Judge Lawrence of New York in a suit brought against us by our competitors in trade is not a final disposition of the case; and that in order to protect our rights until the cause could be heard upon its merits at the next term of Court, the temporary injunction preventing us from selling in New York, was continued only on the condition that the bond of the plaintiff be increased ten fold.
In conformity to the order of the Court we have discontinued our branch office at 77 Maiden Lane, and will, until further notice, conduct all our business from the Home Office in Philadelphia, under the protection of the recent decision of the Philadelphia Courts and of the Attorney General of the State of Pennsylvania, rendered in cases between the same parties.
In these cases our right to use our corporate name and trade mark were fully sustained and we are confident that upon the final hearing of the case upon its merits, our rights in the City of New York will also be sustained by the New York Court. PRINCE'S METALLIC PAINT CO.,
EDGAR BARCLAY, President.

RICKARD & HEWITT,
Grinders and Manufacturers of
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CHROME YELLOW, all qualities.
FRENCH STANDARD GREENS all shades.
CHROME GREEN, all shades,
PURE CHINESE BLUE,
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FULL LINE OF SUPERFINE COACH COLORS,
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OIL WOOD STAINS: Old Oak, Mahogany, Cherry, Cocobola, Walnut, Rosewood, Ebony, O Colors, Mixed Paints, Tin ed Paints in paste form.
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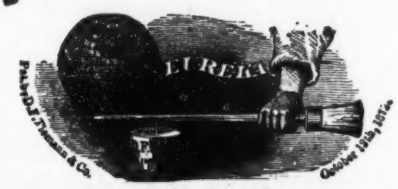

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THE particular attention of paint and varnish manufacturers and users of these articles is directed to a very useful book entitled "*Painting and Painters' Materials*" by Charles L. Condit, which treats of Oils, Pigments, Varnishes, Driers, etc., in a thorough manner. This is the only book treating these subjects upon the basis of scientific investigations made in Holland, Germany and France. Send $2.25 to this office and we will mail a copy at once.

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Vermilions, Carmines, Chrome Greens and Chrome Yellows,
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the favorite English Vermilion substitute,
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Strictly Pure Paris Green.

QUICKSILVER VERMILION.

CHROME GREENS AND YELLOWS.

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Paris Green,

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PARIS GREEN
MANUFACTURED BY
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IMPORTANT

To House Painters, Decorators, Boat Builders, Yachtsmen, Architects, and Builders desiring an EXTREMELY DURABLE Finish for Wood.

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FINISHES,

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Are superior to any **Varnishes** or **Wood Finishes** in the market for the following reasons, viz. They possess **more body, higher lustre, greater resisting properties to atmospheric influences, a lon of water and alkali, are more elastic, will n o scratch or mar white,** and **are more durable.**

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"WESTMINSTER" PARIS WHITE.

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For 1st Coat, one pint of water to a Pound.

For Whitening and Coloring Walls, Ceilings, etc.

Mix with hot water and use when cool.

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For 2d Coat, one pint and a half of water to a pound.

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Schumachersche
No. 3. II.
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Composition Pumice Stone.
This Composition Pumice Stone for convenience, economy and effect is very superior to the volcanic or natural stone for every art or manufacture in which the latter is used, not only because it is entirely free from all foreign substances, which injure and interrupt the work (causing both trouble and expense), but also that it is furnished in a very tractable shape and in every texture of grain, and of hardness required for the various kinds of work.
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Chrome Greens, and Yellows, Blues, Carmine, Lakes, Etc.
DRY AND PULP COLORS, QUICKSILVER VERMILION.
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FACTORY:
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Manganese, ASPHALTUM,

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conclusion, our Leadville friends assume that the apprehensions expressed in 1882 were well grounded, whereas in point of fact, a very little examination, we are satisfied, would show both ex-Senator Hill, ex-Governor Grant and Mr. Thomas also, that no possible injury could have occurred in 1882 had the duty on imported lead been reduced from $40 to $37 60. The average price of lead in London was about $69 87½ per ton of 2,000 pounds in 1882, $62 50 in 1883, $57 50 in 1884, and $56 37½ in 1885. That is to say, imported lead must have stood here in 1883 at $100 10, at $95 10 in 1884 and at $93 97½ in 1885 exclusive of freight and all other importing charges, whereas, the average price of lead in New York in 1883 was but $85.70, in 1884 but $75.36, in 1885 but $80.90 per ton. On the other hand, during the years in question even had the duty been reduced as low per ton of 2,000 pounds as $25, as is now proposed by the Mills bill, foreign lead could not have been imported and sold at a profit in competition with American lead at the average prices which have ruled in the New York market since 1882, as may be seen from the following official figures of wholesale transactions:

	Cents per lb. First half.	Cts. per lb. Second half.	Cts. per lb. Year.
1883	4·11	4·07	4·28
1884	3·824	3·632	3·766
1885	3·785	4·278	4·045
1886	....	....	4·63
1887	....	....	4·47

At present, or during this year, no pig lead is selling or has been selling in the English market lower than $62.50 per ton. Foreign lead at that price cannot possibly be imported and sold here at a profit for less than $90 or 4½ cents per pound even should the duty be reduced to one cent and a quarter per pound, as should be plain to the dullest understanding, and no good can be done to the mining industry of Colorado by placing it in unreasoning antagonism, for sheer political purposes, to those who have formulated and supported the Mills bill.

Recent Patents.

386,704. MANUFACTURE OF ALUMINIUM FLUORIDE. Filed June 28, 1887. Issued July 24, 1888.

Claim.—The process of producing aluminium fluoride which consists in treating a solution of aluminium sulphate such as described with sodium or potassium cryolite, evaporating the solution, heating the product to redness, and finally washing the same, substantially as described.

386,417. FEED APPARATUS FOR GLASS-POLISHING MACHINES. Filed Feb. 12, 1887. Issued July 17, 1888.

Claim.—1. In a feeding apparatus for glass-polishing machines, the combination of a longitudinally-adjustable frame, a pivoted vertically-adjustible inner frame and a traveling brush-carrier, substantially as described.

2. The combination, with the internal frame vertically adjustable at its forward end, of the weighted putty-box suspended thereto, so as to retain a horizontal position in any adjustment of the frame, and the brush arranged to dip therein and carry the material to the polishing-wheels, substantially as described.

3. The combination, with the swinging frame and the brush-carrier, of the putty-box, the ever for adjusting the frame, and a locking device, substantially as described.

386,933. PROCESS OF PREPARING A SOLUTION OF INDIGO FOR DYEING PURPOSES. Issued July 31, 1888.

Claim.—The method, substantially as herein described, of preparing a woad bath for dyeing with indigo, consisting in mixing guano salts with water, and then adding zinc dust and indigo or other bodies having an affinity for oxygen, and then heating the mixture, the ingredients being mixed about in the proportions given.

387,240. ROOF-PAINT. Issued Aug. 7, 1888.

Claim.—A liquid slate-paint compounded of common gum-shellac, water and potash, in the quantities and manner described, in combination with linseed-oil, balsam of fir, white ead and flour of emery, in quantities named.

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EAGLE WHITE LEAD CO.

GRINDERS AND MANUFACTURERS OF WHITE & RED LEAD

LITHARGE, ORANGE MINERAL, PUTTY & COLORED PAINTS, DRY & GROUND IN OIL.

20, 22, 24, & 26 SPRING STREET, Cincinnati.

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This article of acknowledged superior merit, is now in use all over the world.

Varnishes, Japans,
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Of Finest Quality.

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Color Grinders' Japans,
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For Manufacturers of
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25 & 27 Cedar St., N. Y.,
Varnish Gums and Shellac.
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Extra Fine American Gold Paint and Liquid Gold Silver, Imitation Gold Leaf and Dutch Metal.
Manufactured and Imported by
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Excelsior and Artisan Flint Paper
GLUE, EMERY, &c.
FACTORY: NORTH FULTON AVE.,
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Not in the combination.

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MARBLEINE SUPERIOR TO KALSOMINE.
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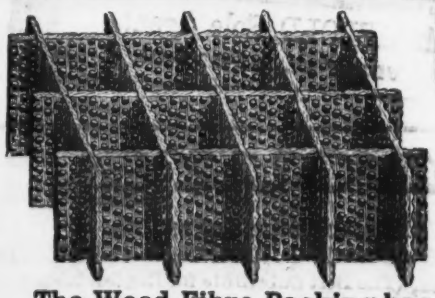

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The Wood Fibre Packing has been used by some of the largest shippers in the U. S. Sent all over the world and not a single complaint of breakage has been reported. It is absolutely safe.

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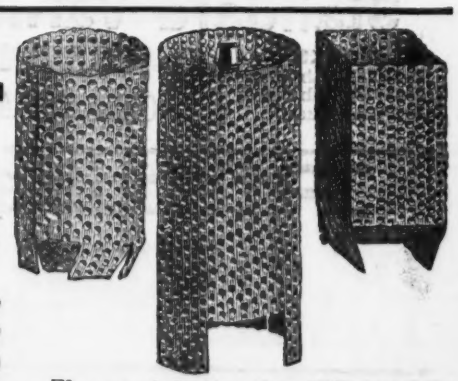

The special attention of Druggists and all packers of bottled goods and fragile articles is called to this packing.

It is neat, clean, compact, and saves from 30 to 50 per cent on cost of freight.

Sample cases fitted up without expense to owners.

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Valentine & Company NEW YORK

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MANUFACTURER OF

PETROLEUM BARREL PAINTS.

OF ALL COLORS.

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Chinese Blue.	Chrome Yellows.	Vermilion.
Prussian Blue.	Chrome Greens.	Lakes.
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Equal in Every Respect to the Finest Imported French Pigments.

Quality Absolutely Unsurpassed.

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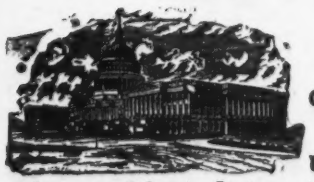
BELT DRESSING AND CEMENT.



This Paint retains a beautiful gloss without a particle of Varnish in it, and will stay on Spruce where all other known paints fail to stay but a short time.

It contains a pigment which renders it thoroughly **WATERPROOF** and unlike all other known paints possesses in a remarkable degree immunity from harm when subjected to attack from ammonial vapors. Our Belt Dressing and Cement are unequalled.

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WOOD ALCOHOL, ACETONE, ACETATE OF LIME, BLACK LIQUOR.

MANUFACTURED BY

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To protect the **THROAT** and **LUNGS** from dust, poisonous gases and all other impurities.

Preventing disease and prolonging life.

Adapted for use in White Lead Works, Glass & Blast Furnaces, Chemical, Paint & Color Works, Snuff Factories, Smelting & Refining Works, Paper Mills, Furniture Factories, Iron Works, etc., etc.

Air is inhaled through a wet sponge and exha'ed t) rough an automatic valve

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Size No. 1. For Glucose and Grape Sugar Refineries.
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MARSEILLES GREEN

Or Paris Green Substitute.

MARSEILLES COLORS.

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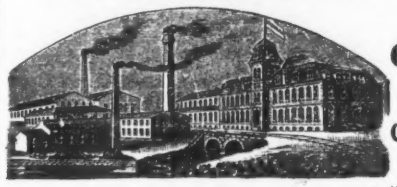

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RESTORATIVE OIL.

For use on *exterior painted surfaces* of any kind which have faded or lost their brilliancy of color. A single coat of this Oil applied to a surface will make it look as well and frequently better than a coat of the best paint, while the cost is only about *one half* as much. One of the most serious difficulties experienced at the present time is that paint cracks and scales off; this is frequently owing to the fact that too much Pigment and too little oil has been applied to the surface. By using this Oil *the difficulty can be largely overcome.*

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Price and discount to dealers upon application. Put up in cases containing two 5-gallon cans, or twelve 1-gallon cans.

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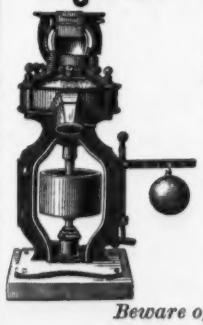

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Next on the List to PLATNUM for Resisting ACIDS and ALKALIES.

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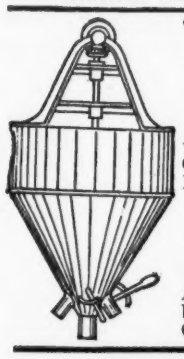

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Dispenses with Sieves and Screens.

No wear and tear—Separates to any degree of fineness, working successfully on Alkali, Basic Steel Slag, Charcoal, Chrome Ore, Cement, Flint, Ginger, Gold Quartz, Linseed, Manganese, Paints, Phosphate Rock, etc., etc.

Capacity, 1 to 4 tons per hour.

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Also makers of Newhall Patent Driers adapted for all stubborn and delicate substances, Ochre, Paris Green, Sugar, Cream Tartar, Corn Meal, etc., etc. Correspondence solicited.

AUTOMATIC PORTABLE MILLS

For Grinding Mineral Paints, Drop Black, &c., finer than it can be bolted.

WATER COOLED PAINT MILLS

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CHASER MILLS, BORAX MILLS,

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The only way to Grind Phosphate Rock Cheaply.

Grinding and Bolting Machines of all kinds.

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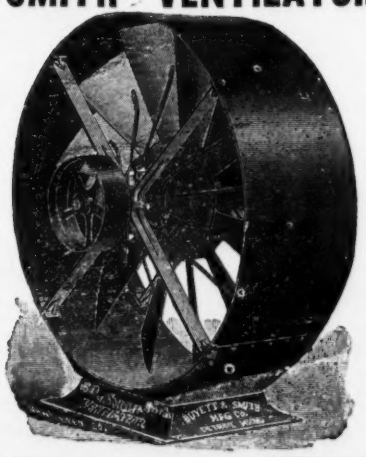

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TINTED LEADS,
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LAVA FIRE and WATER-PROOF PAINT,

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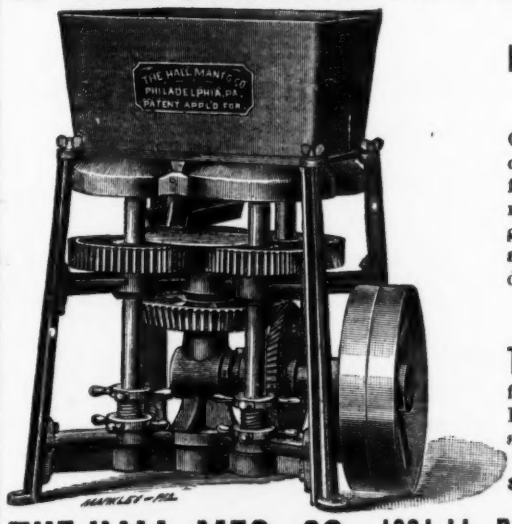

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The Hall Emery Grinder

for recutting and dressing Iron Paint Mills—Quick and perfect work can be done by a boy upon it.

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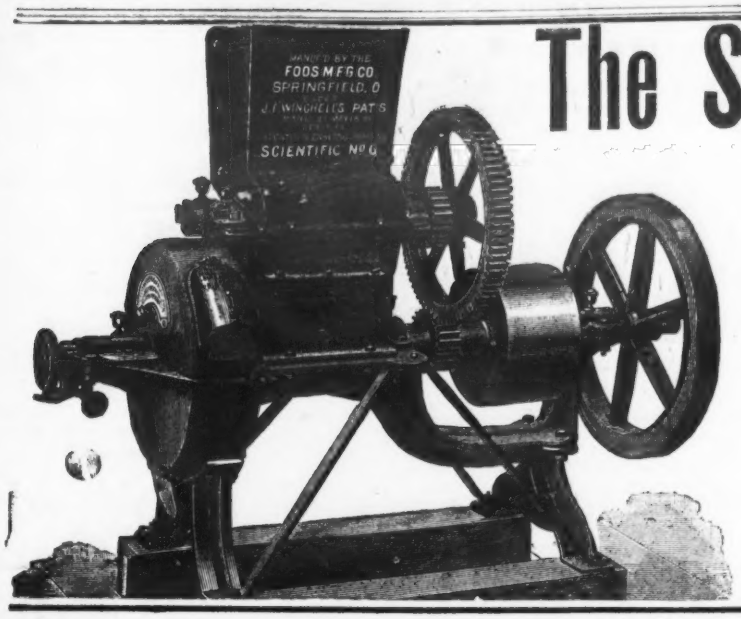

The Scientific Grinding Mill

The Best Mill on Earth.

Will **Crush** and **Grind Linseed, Cotton Seed,** or any **other kind** of **Oil Cake.** Can be fed into mill **as it comes from the press,** and reduced to meal in **one operation.** Is also adapted for grinding **Tankage, Guano, Phosphate, Fish Scrap** and **all kinds of Fertilizers;** also **Fire Clay, Brick, Coke, Soap Powder, Salts, Ochres, Umbers** and numerous other materials, including **Gums** and **Drug Stocks.** We make mills for crushing **Raw Bones,** in **all sizes** and **shapes, Oyster Shells,** etc., and will make experiments and report results, without charge, on any work.

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Meriam & Morgan Paraffine Co.
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Manufacturers of
COLD PRESSED PARAFFINE OILS,
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George Delano's Sons.
SPERM, SEA-ELEPHANT, WHALE AND MENHADEN OILS,
Refined Spermaceti, Sperm and Paraffine Candles.
WHALE AND FISH PRESSINGS,
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SPERM, LARD, WHALE, COTTONSEED, ELAIN AND RED OIL,
"CLEMENTS" CORN STARCH, IN BOXES AND BARRELS, for Export and Manufacturers use. AGENTS FOR L. Z. O. OXIDE OF ZINC.
WESTERN AND SOUTHERN PRODUCE SOLD ON COMMISSION.

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MANUFACTURERS OF
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CLEVELAND, OHIO, U. S. A.
Manufacturer and Refiner.
Refined Paraffine Wax
A SPECIALTY.
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OFFICES AND FACTORIES AT
CHICAGO - ST. LOUIS - OMAHA - NEW YORK.
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Address, New York Office at 218 Produce Exchange.
We call especial attention of the Drug Trade to our
"FAIRY SOAP."

The "Fairy" brand is the Purest Soap ever manufactured. We warrant it far superior to any imported Castile Soap. Send us a trial order.

Lard Refiners, Oil Pressers, Soap Makers.
MANUFACTURERS OF
Extra Double Refined Acidless Lard and Tallow Oils
AS WELL AS ALL GRADES OF
Lard Oils, Tallow Oils, Neatsfoot Oils.
—REFINERS OF—
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Our Acidless Products are warranted not to contain above one-quarter of one per cent. of Free or Fatty Acid.
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N. B.—The best brands of Butchers' and Packers' Tallow contain from one to ten per cent. fatty acid.

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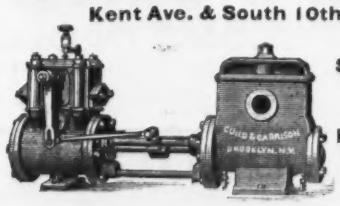

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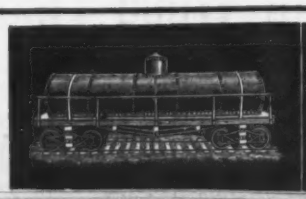

WM. B. POLLOCK & CO.
MANUFACTURERS OF
OIL TANK CARS, OIL TANKS AND STEAM BOILERS.
YOUNGSTOWN, OHIO.

OIL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

Vegetable Oils.

TUESDAY EVENING, Aug. 14, 1888.

The linseed oil market is slightly firmer than this time last week, owing to the higher seed market, and no disposition is manifested to sell out-of-town oil at a less figure than quoted previously. For car loads 46c is asked, with 45c as a possible buying price. Receivers of Western oil continue to name 47@48c from store. City crushers are experiencing a fair business for this season of the year, at the former price of 53c, which they decline to shade.

Cotton oil is higher, offerings are limited and the inquiries better, These features of the market have special reference to summer yellow grades, which are changing hands in a moderate way. The last sale of prime oil was at 48½c which is an advance of 2½c since this time last week, and at the close 49c was bid without being accepted, This would indicate a gradual fulfillment of the prediction made by a trader two months since that the market for summer yellow would touch 50c before the arrival of new oil in October. It is not known how much stock of this grade is on hand, but the progress of events would indicate a very limited supply as holders are unusually indifferent about doing business, and when buyers make their wants known the response is by no means prompt. The expectation is for higher prices, hence the firm attitude of holders. Other markets for oils and greases having stiffened to some extent the change has some effect on cotton oil values, but this season the latter has taken the lead among such products, while in former years the ruling staple was lard and its fluctuations would cause changes in other markets. White summer oil is held at 49@50c and winter grades at the old figures. Crude oil is rather slow of sale at 40@41c; the stock is small but buyers are scarce. The question of quality which always comes to the surface at the opening and closing of each season is a feature of the trade at present and sales are made either by sample or "guaranteed prime or no sale." The oil committee had a case on hand to-day in which the quality was disputed.

Exports of cottonseed oil from New York by countries

To	For week ending Aug. 13, 1888. Bbls.	Since Sept. 1, 1887. Bbls.	Same time last year. Bbls.
Africa	..	4	....
Arg. Republic	..	6	11
Australia	..	163	152
Austria	..	2,978	2,260
Belgium	150	3,909	1,065
Brazil	..	214	276
Br West Indies	18	991	1,326
Br Guiana	..	2	30
Canary Islands	..	....	....
Central America	..	12	16
Chili	..	19	192
China	..	....	....
Cuba	..	2	41
Dan West Indies	..	145	163
Denmark	..	51	4
Dutch West Indies	..	7	7
Ecuador	..	1	10
Egypt	..	....	....
England	..	2,677	3,436
France	..	14,439	4,560
French West Indies	..	14	1,062
Germany	150	1,528	948
Hayti	..	34	51
Italy	..	1,020	550
Mexico	27	149	16
Netherlands	100	16,848	23,555
North America	..	360	194
Norway	..	450	....
Peru	..	13	....
Pto Rico	..	51	1
Scotland	..	170	159
Spain	..	110	....
Turkey	..	....	....
U. S. Columbia	..	66	38
Uruguay	25	25	
Venezuela	..	32	26
Total	470	54,403	39,400

Exports of cottonseed oil from New Orleans by countries:

To	For week ending Aug. 10, 1888. Bbls.	Since Sept. 1, 1887. Bbls.	Same time last year. Bbls.
Austria	..	....	2,000
Belgium	..	4,200	2,000
England	..	500	4,622
France	..	1,920	3,125
Germany	..	1,658	760
Gibraltar	..	....	9,064
Italy	..	2,768	3,400
Netherlands	..	17,628	2,843
Portugal	..	....	....
Spain	..	2,500	2,000
Total	....	31,234	29,864

Exports of soap stock from New Orleans by countries:

To	For week ending Aug. 10, 1888. Bbls.	Since Sept. 1, 1887. Bbls.	Same time last year. Bbls.
Juba	..	....	....
England	..	....	3,900
Italy	..	....	2
Spain	..	....	....
Total	..	....	3,902

Ceylon cocoanut oil is apparently on a steady basis at 5⅝@5¾c for supplies on spot, or 5¼c for near-by arrival. Jobbing sales are being made within the range of spot prices. A large sale is reported at 5c for delivery at the opening of next year, but the quantity is not stated. Domestic cocoanut oil is offering at 5c for immediate delivery. Cochin oil is unchanged in any particular, being quoted at 6⅛@6¼c. The latter article is still neglected.

Olive oil can still be bought at 68c for spot supplies, although some parties are still quoting 72c for Italian grades, owing to higher foreign markets. We have sales of 20,000 gallons Italian on spot at 67@69c, 15 bbls Spanish on spot at 70c and 25 bbls ditto to arrive at 68c.

Animal and Fish Oils.

Lard oil is more active and steadier at 64@65c for prime ice pressed. The market is not expected to decline for some weeks at least, owing to the position of the lard market which is made sensitive on account of the short supplies, as outlined in our editorial columns.

Saponified red oil was expected to sympathize with the firmer feeling in tallow, but no change has occurred thus far, and offerings are still made at 4½@4¾c, according to holder.

Sperm oil is being taken more liberally, and it is some gratification to the general trade to have prices named at which sales were made. Secrecy creates distrust, and when business is announced on private terms there is a feeling that prices are going lower. However, we have a sale to report of 675 barrels crude at 60c per gallon for domestic use. Receipts for the week were 340 barrels. Crude whale oil has been taken to the extent of 240 barrels at 30c. the grade being Southern. The refined market is steady.

Whalebone continues in active demand, with sales of 12,000 lbs. Arctic, at $2.85 per lb., and 2,000 lbs. South Sea, at $2 per lb. These prices still prevail. The total stock of bone is distributed as follows:

New Bedford—Arctic,	10,500	}	48,100
" " Jap & Ochotsk,	31,500		
" " South Sea,	6,100		
Elsewhere—Arctic,	34,000	}	51,800
" Jap & Ochotsk,	6,000		
" South Sea,	2,800		
Total,			99,900

Letters received in New Bedford give the corrected report of the Arctic catch of whales up to July 13. To that date the number had reached 22½. The remainder of the fleet were supposed to be clean. The total number comprising the Arctic fleet is 38 vessels, including 4 schooners that do some trading, not 40 San Francisco vessels, as has been erroneously reported. The captains report that last Winter was the most severe ever known for ice in Behring Sea, while in the Arctic it was the most open. Point Barrow was reached by steam whaler Orca on the 4th of July, an occurence which has never happened before at that season of the year. Several of the whalers were confined in the ice from April 13th, for 59 days.

Menhaden fish oil is in the same position as this time last week, with 25c quoted at northern factory or 26c delivered. These prices are uniform and will not be shaded, although there is no understanding among the fishermen on prices. Fish are reported plenty but poor in quality. The movement of oil equals the production, and this indicates slow work among the reduced fleet. As other oils and greases are favoring holders, the menhaden market may likewise stiffen, and buyers are not slow to act. This is especially the case with pressed grades which are relatively below the value of crude, and are more inquired after by those who are posted on the progress of events.

Mineral Oils.

About the only feature to be recorded is the continued increase in the export movement of mineral lubricating oils. During July the shipments from all the ports were 312,440 gallons in excess of the same month last year. at an increased value of $84,979. For the seven months ending August 1, the shipments had increased 2,659,187 gallons, the aggregate movement for that period being 13,446,087 gallons,

The general market is steady at uniform prices. Not a single break in the schedule is reported, and the condition of affairs is considered more satisfactory than has ever been known to exist. Buyers and sellers know how to act without being interfered with by disturbing elements which were so charac teristic of the market in former years.

The Clark & Warren Refinery at Corry has been closed for some time, and it is reported to have changed hands, but this was subsequently denied. Some developments, however, are expected in a few weeks.

Oil Cake.

No price can be quoted for oil cake, as the market is between two seasons, with no stock to draw upon. Supplies of Western would probably bring $23 50 on spot.

REED, HALL & HEWLETT

18 & 20 PLATT ST., NEW YORK.

MANUFACTURERS AND SHIPPERS OF

Animal, Vegetable and Mineral OILS.

Valve, Cylinder, Signal, Machinery, Engine and Lubricating Oils.
Sperm, Lard, Tallow. Neatsfoot, Whale Elephant, Seal, Cod and Fish Oils.

Pure Spanish and Italian Olive Oils.

All grades of Pure Olive Oil Soap for Silk and Worsted Mills, either in bulk, bars or powdered.
Saponified Red and Elaine Oils.
Mineral Wool Oils and Wool Stocks.
Castor, Rape, Mustard and Cottonseed Oils
Paraffine Oils, Paraffine Wax and Beeswax.
All kinds of Lubricating and Axle Greas
Tallow, Lard and Cottonseed Grease for Soap Makers.

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Producers of Pure Natural West Virginia Rock Oils.

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CLAYTON ROCKHILL,
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GENERAL EASTERN AGENT.

F. W. BRODE & CO.,
MEMPHIS TENN.
COTTONSEED PRODUCTS
CRUDE AND REFINED OILS,
Miners' Oils. Winter Yellow, Summer Yellow Summer White, & Cooking Oil.
Meal and Cake. Soap Stocks.
Correspondence Solicited. Samples sent on application

MICA AXLE GREASE.

THE CINCINNATI TRANSFER CO.,
Cincinnati, Ohio.

Mica Axle Grease is very satisfactory in every respec
Quite superior to any axle grease we have ever used before.
W. J. Winterbottom, Supt.

We endorse the above.
Griffith & Hill, Lumber Dealers.
Jas. Griffith & Sons, Planing Mill.

Springfield, Vt.
I have a large sale of Mica Axle Grease. *It wears three times as long as any I ever used.*
Minor W. Newton

Eldorado, Wis.
We have sold Mica Axle Grease for five years; *It is the best Grease manufactured.*
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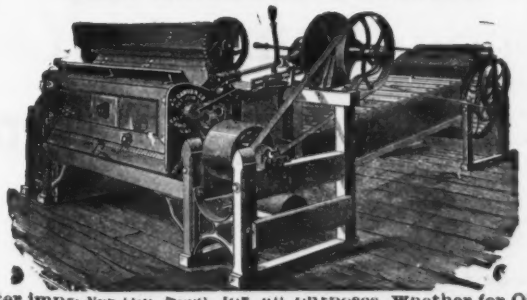

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Soapstock.

Wax Lard, Tallow, Etc.

The paraffine wax market has not changed since last report. Crude seems to be in limited request, and the supply is not excessive, In a jobbing way 4½@4¾c is the general range of prices realized. Refined wax is stationary at former easy prices.

Lard prices are still elevated, there is a short interest to be satisfied, and local stocks are said to have been absorbed by recent transactions Western steam for prompt delivery is held at 9.05c and city steam at 8.65c. Refined lard is quoted at 9@10.25c.

Lard stearine is held too high for business, the best bid being 11c without acceptance. Oleo stearine has reached such high prices that buyers are encouraging the importation of French stearine. One sale of the latter is reported at an advance to 9 5-16c on spot.

Tallow is firmer and holders are asking 4¾c, while 4⅝c is the best price yet realized.

Naval Stores.

Spirits Turpentine—The market to-day is considerably firmer in tone than it was at the same time last week, the turn coming on Thursday last, when stronger advices from the South were received, and immediately the market changed. The price was at once advanced, which has had the effect of limiting trading except where supplies are required to satisfy pressing wants. At the close to-day the market was steady at 36½@36¾c.

Rosin—The market has not been specially active, but rather to the contrary, although there has been a fair trade at times, the movement being almost entirely in low grades. As regards prices they are at last week's figures, and the market closed quiet to-day, with the following unchanged quotations ruling: Strained, $1 02½; good strained, $1 07½; E, $1 15; F, $1 22½; G, $1 27½; H, $1 32½; I, $1 40; K, $1 50; M, $1 57½; N, $1 80; W G, $2 35; W W, $2 90.

STOCK ON HAND AT

	Spirits.	Rosin.	Tar.
New York, Aug. 13..bbls	1,208	20,102	323
Savannah, Aug. 10.....	7,770	76,531	....
Wilmington, Aug. 11....	3,615	65,050	2,474
Charleston, Aug, 10.....	3,349	18,000	....
London, Aug. 7.....	13,600	.. .	. ..

LONDON TURPENTINE STATISTICS.

Messrs. Watt & Son, London, under date of July 28 say:

	1888.	1887.	1886.	1885.
Stock July 28 ..	14,737	8,499	23,246	22,592
Delivered this week.....	..1,243	1,547	1,651	658
Since Jan. 1....	38,880	42,178	46,336	35,079
Price July 28...	27s 6d	25s 3d	25s 9d	28s 6d
Sept-Dec.....	..28s 0d	24s 0d	25s 6d	28s 6d
Jan-Apl.....	..29s 0d	—	—	30s 0d

Oil Land Lease War.

Pithole has a lease war, says the *Derrick*. The combatants in this case are Alexander Borry, of Pithole, who is supposed to represent certain Franklin capitalists; and W. E. Gibson & Co, of this town, and C. H. Brown, of Rouseville. The bone of contention is the David Cutler farm; an alleged oil farm lying between Pithole and the Lytle farm, the new center of gravity, so to speak, in the Pithole field. There are two claimants for the farm; the claims of each rest on tax titles. These rival claimants are Brown, of Rouseville, and B. W. Braden, of Franklin. The first named claimant says the farm is his'n because his tax deed is the oldest. Brown leased his farm to Gibson & Rogers retaining an interest with them. They started a rig last week which on Sunday last was in an advanced stage of completion, when Alexender Berry invaded the lease, demolished the rig and hauled off the timbers, holding possession of the territory for himself and his next friend at Franklin. This summary act on the part of Mr. Berry of Pithole brought Mr. Ike Gibson on the scene. Tuesday morning Mr. Gibson looked the situation over and began a vigorous offensive campaign. He started in by placing Berry, the belligerent, man of Pithole in arrest. This removed Berry from the scene, when Gibson availing himself of a clear coast entered into possession and started to rebuild the rig. All this was not accomplished without opposition. Mr. Berry had a friend, who was the possessor of a shotgun and an irascible temper. The sight of Berry in irons and Ike in possession aroused the demon which lay dormant in the aforesaid friend. His temper rose up and his ready shotgun came down, and Isaac, he slid around a convenient corner where he might do his thinking uninterrupted—and he had a good deal of it to do about that time. Neither the gun nor the temper exploded. Ike remains in possession. Last night two stalwart sentinels guarded the approaches to the Gibson rig. They wore the Gibson coat of arms. They were fluent in their expressions of loyalty to Gibson and hatred for the anti-Gibson gang. The further proceedings of this cruel war will be awaited with interest.

The Galician Petroleum Wells.

The *Allgemeine Zeitung* has received information from the petroleum districts of Galicia, which, if not exaggerated, is of a very ominous character. From several inland petroleum refineries requests have been sent to the proprietors of petroleum wells for quotation of prices, and replies have been received to the effect that none can be given for the time being. The reason for this is a falling off in the supply of petroleum. In the western oil districts it flows only in insignificant quantities and very much more impure in quality than formerly. Near Krosno, again, where a single well a short time ago yielded daily an amount of petroleum valued at 30,000 florins, that is ten million guldens yearly, *pro rata temporis*, the oil is said to have completely ceased to flow. Now it is quite possible we have here to do with nothing but a temporary phenomenon, since in other places a temporary stoppage in the flow of the oil has been observed, such as in large districts of Pennsylvania, North Germany, etc. In some sections of the Caucasian oil district also a decided slackening in the yield has been observed for months past.

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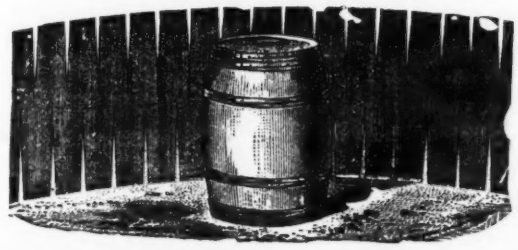

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PETROLEUM MARKET.

TUESDAY EVENING, Aug. 14, 1888.

The course of the market early in the week appeared to be in favor of the long side, and there certainly were good reasons for expecting the strong position to be sustained. As the trading became dull, however, the prices began to drop, there being no support, even the Western operators who have several times during the past few months operated on the long side when the conditions were far less favorable to success, failing to come to the front. The operations on the local exchange at the first indication of a change began to operate on the bear side, and the short interest was greatly increased, thus helping the downward turn. The effect of the pipe line reports, which showed so large a decrease in stocks, was only temporary, and the belief that the improved statistical situation would exert a permanent influence, appears to have been mistaken. It has become apparent that it will require a still further large decrease in stocks with continued large difference between runs and deliveries before the market will respond promptly and permanently to the altered conditions of supply and demand. It would at present require but a moderate effort on the part of the bull operators to force the price above 90c and keep it there, but they appear to lack the courage requisite and await support from outside investors without setting the example. While trading early in the week was fair and seemingly gave promise of continuance of at least moderate proportions, the business has during the past few days dropped to the low level of dullness which has characterized the transactions for so long a time, and has been for the most part confined to scalping. While the situation warrants a higher range of prices, other conditions are wanting and the future will depend,as it has in the past,largely upon the operations of the traders. The transactions during the past week again show an increase over those of the previous week, the sales footing up 7,135,000 bbls against 6,174,000 bbls for the preceding week, The clearances of the local exchange amounted to 24,625,000 bbls, against 17,670,000 bbls during the preceding week. The total clearances reported for the other four exchanges amounted to 51,865,000 bbls against 39,724,000 bbls for the preceding week. The highest price of the week was reached Wednesday, when 89½c was touched. The lowest point of the week was 82⅝c, and was touched today. The opening price last Wednesday was 88¾c, and the close this evening was at 83⅝c, showing a loss as the result of the week's trading of 6¼c, while the extreme range of fluctuations for the week was 6⅞c.

At Brush Creek Murphy & Loans well on the Robinson farm is flowing from 20 to 25 barrels a day from the Butcher's sand, the same horizon as the Snee well on the Schwinderman farm and the old Butchers well at this town.

Davis Bros. are having trouble with their No. 4, which received no benefit from the last shot. In attempting to clear out after the shot they lost their tools, which has involved further expense as well as trouble. Sam Fergus found no Gantz sand in his second well at Bealsville, which is likewise dry in the fifty-foot. At Mount Morris the Faul & Shea well, which stopped producing several days ago, is still doing nothing. Alexander No. 2 in the same district has also stopped flowing. The Nineveh well is also losing its grip; it at present flows about 135 bbls. a day.

At Taylorstown the White farm well, drilled by Flynn, pumped 45 barrels the first twelve hours, including the head. Jo Jo 6, on the Hilton farm, is good for about 120 bbls a day at the outstart.

Ben Campbell's well on the Helmbold farm, south of Saxonburg, is a small affair; on drilling in the sand the other day the well started off at 4 bbls. an hour, but it soon dropped away and has stopped flowing altogether. Reiber & Yeagle's well on the Pfaube farm is fishing in the sand; it is showing for 50 bbls. a day. Haymaker shot his Crawford No. 1 and it started at 80 bbls. an hour, but soon dropped to the rate of 100 bbls. a day.

Boland & Greenlee's well; 200 feet northeast from the Crawford, on their Lonitz 12 acres, is through the sand, with only about 200 feet of oil in the hole. It is almost a dry hole. At Glade Run Gantz 6, on the Snow farm, was drilled in the sand late Saturday, and started at 40 bbls. an hour. It is located 300 feet from Guckert No. 2, formerly their largest well. Schlegel & Lentz, Martin farm, found but three feet of third sand. No oil or gas.

The oil developments in Green county are said to promise well. They show two distinctive oil belts passing through the county. The upper or Nineveh well streak reaches the Gordon sand and connecting with the Washington field and the Mount Morris district, twenty-five miles southwest of that touching the "Big Injun" (white) sand at a much smaller depth, being reached at between 1,800 and 1,900 feet. Efforts are being made to secure the leases in the Mount Morris field, but the ground is mostly covered. There are now five producing wells in the district, which will average 150 barrels. The drillers have gone over the line into Monongalia county, West Virginia, and struck on the same belt a fine gas well, two miles south of Mount Morris and from which the fuel for working the whole Mount Morris is now supplied with capacity and pressure to run fifty more engines, if required. The wells under way in the Mount Morris district are: Hukill & Co., 4; Mascot Oil Co., 1; John Alexander, 1; J. Olston, 1; Dugan & Co, 1; Alshouse, Canning & Co., 1; nine in all, of which none of the parties interested are connected with the Producers' Protective Association, as at the time the association was formed, the Mount Morris district was overlooked as an investment.

Ben. S. Tupper, the efficient fieldman for the New York Petroleum Exchange, has made a tour of the Pithole field. He was accompanied by W. A. Earseman of the Anchor Oil Company. This was the first view Mr. Tupper has had of Pithole in fifteen years. He expected to see some change but he was not prepared for the spectacle that met his gaze. The spot where once the populous city stood was now a deserted commons, and what was left of the town itself was a magnificent ruins. The only familiar object he saw was Tom Duncan's church that had recently undergone a series of repairs and made a really presentable appearance. Mr. Tupper took in the field from end to end; then he turned too and cross sectioned it, and looked it sidewise, but any and every way he looked at it it looked small to him, viewed in the cold glare of the practical fieldman's camera, the Pithole field is very small potatoes indeed, and he would be justified to add, few in the hill. Mr. Tupper was not to be understood, however, as saying there was no oil there; he had information to the contrary; but he was safe in saying there was not as much as enthusiasts might hope. He found four drilling wells in the field and the usual preparations going forward for other wells when these had been drilled, but there was no excitement, or much energy in the real estate market. He found 17 to 20 new wells, that is to say, wells drilled within the present excitement, covering a period of six months. The output of the district, he was told, was about barrels a day. This, of course, means oil from all sources, including the old wells with the new. He was not prepared to say the top had been reached, at the same time it was not thought the production would be materially swelled by the drilling done in the near future; it is a glycerine production; without the torpedo these wells that are now quoted at 20 to 30 barrels wouldn't be earning their salt. Joe Cappeau is drilling a well on the Vose farm, where he is the sole owner of a 50 acre lease. Black & Doolittle are the most extensive operators and the largest leaseholders in the field, but at this time their drilling list is small. Among the leaseholders of the new dispensation are: Haskell & Doolittle, who own the Huidekoper tract of 320 acres; Black & Doolittle control the Lytle, McBride and Sam Blanck farms, being 300 acres in all; then Fertig & Henne, and Fertig, Dunham & Henne have several properties, aggregating about 300 acres. Boyer & Emery have the J. A. Heydrick farm of 100 acres, but they won't do any drilling during the shut-down. Porter & Quick have possession of the Old Paxton Petroleum Company's property. This is also in the shut-down. R. R. Armor has the Watson farm of 150 acres; Joe Cappeau is on the Vose farm. The Reno Oil Company is operating the Oak Ball and Oak Shade properties in a small way. The aggregate of lease hold property in the new deal will foot up close to 2,500 acres. How much of that is oil territory, the drill alone can tell, but estimated on a white sand basis, one-fourth would be a safe estimate.

Wednesday, Aug. 8.

There was considerable anxiety shown as to what would be the opening figure this morning and although the feeling was very strong the first sale at 88¾c was a surprise to many as a gain of ½c over yesterday's closing figure was scarcely looked for. With this advantage gained the bull party worked encouragingly, and there being a fair support by orders from other sources the price moved steadily upward and reached the highest point at 89½c. Several efforts had been made to stem the rising tide, but the only effect was to check the advance or cause slight fluctuations, but when buyers began to show hesitancy as the figures began to recede a few holders became alarmed and sought to evade the damage of a threatened break, only to intensify the reaction, the figures finally reaching their lowest level at 87c. The close was at 87¼c. showing a loss for the day of 1¼c under a range to quotations of 2½c. Trading was quite active at times and resulted in sales of 1,974,000 bbls. The only news from the region was to the effect that the White well at Taylorstown was doing 60 bbls a day. The Fergus wildcat at Beallville was reported dry.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	88¾	12:30	89¼
10:30	88⅝	1:00	89⅜
11:00	88¾	1:30	8 ⅛
11:30	89¼	2:00	89
12:00	89¼	2:30	88¼
		3:00	87¼

The clearances were as follows: New York, 6,288,000; Oil City, 3,700,000; Pittsburg, 4,400,000; Bradford, 1, 86,000; Philadelphia, 814,000; total clearances Aug. 8, 17,188,000 bbls.

Carrying rates were: New York, flat; Oil City, 25@30c; Pittsburg, 20c; Bradford, 15c.

Market Aug. 9, 1887—57⅛@59½c.

Thursday, Aug. 9.

An advance of ¼c over the closing figure of last evening was shown by the first sale this morning, which was made at 87½c, but the boom appeared to have spent its energy, notwithstanding that the support on the part of the market for refined has been substantial, with the demand unabated. After some scalping an influx of orders encouraged the operators to hope for another advance and the liberal buying sent prices up to 88⅜c, but this could not be sustained and as buying slackened prices dropped, in fact they made a quick descent to the opening figure. During the afternoon the fluctuations were rapid and at times of considerable extent, the market being manipulated by the regular board room traders and the operations were pricipally of the scalping order. Late in the day a raid was made by a bear clique who succeeded in forcing the price down to 86½c from which there was only slight recovery, the market closing strong at 86¾c. This made a loss for the day of ¾c, while the extreme range to fluctuations was 2½c. Trading was fair and resulted in a total sales of 1,390,000 bbls. In the producing fields the Shamrock well on the White farm near Taylorstown, otherwise known as the Flynn well, is showing for 60 to 80 bbls a day natural, which is less than the average Taylorstown well. Davis Bros. exploded another big torpedo in their No. 4 well, which suddenly ceased to produce the other day, with no immediate results. Faul & Shea's well, of which so much was heard a day or two ago, has stopped flowing and the owners are getting ready to exercise the pump in it. It is reported to have got some salt water between the two pay streaks. Grace & Co.'s well on the Huffman farm, Bakerstown, is in the lower sand but it hasn't any oil. Boyd & Semples' well on the Basil decker farm near Mars station, has a showing for 10 bbls a day in the hundred-foot.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	87⅛	12:30	87⅜
10:30	87½	1:00	86¾
11:00	87⅜	1:30	86⅞
11:30	87¼	2:00	87⅛
12:00	87⅜	2:30	87⅜
		3:00	86¾

The clearances were as follows: New York, 6,808,000; Oil City, 4,802,000; Pittsburg, 4,698,000; Bradford, 1,842,000; Philadelphia, 678,000; total clearances Aug. 9, 18,828,000 bbls.

Carrying rates were: New York, flat; Oil City, 25@30c; Pittsburg, 15c; Bradford, 15@20c.

Market Aug 10, 1887—58⅝@59⅞c.

Friday, Aug. 10.

There was lacking the feeling of confidence to sustain the market at the opening although the first sale made was at 87c, ¼c over the close of last evening. After some piking there came an influx of orders, and the regular operators also taking hold, the figures were advanced to 87¾c, and this remained the highest price of the day, the market promptly reacting when it became apparent that the advance was based on no more substantial basis than the efforts of the scalpers. The remainder of the day developed very little of interest while prices varied little until late in the day when a break occurred which brought the lowest price down to 86½c. As the session approached an end more strength was shown and the market finally closed at 86⅞c, showing a loss for the day of ⅛c under a range of 1¼c. Trading was light, with sales of only 655,000 bbls. The news from the region was not important. The pipe line statement showed a reduction of 671,3?2 bbls in net stocks during July, including 210,735 bbls in outstanding certificates and 460,627 bbls in credit balances.

The half-hourly quotations were as follows

A.M.		P.M.	
10.00	87	12:30	87⅛
10:30	87⅛	1:00	87¼
11:00	87⅛	1:30	87⅛
11:30	87⅛	2:00	87¼
12:00	87⅛	2:30	86⅞
		3:00	86⅞

The clearances were as follows: New York, 4,598,000; Oil City, 3,472,000; Pittsburg, 3,490,000; Bradford, 1,940,000; Philadelphia, 572,000; total clearances Aug. 10, 14,072,000 bbls.

Carrying rates were: New York, 10@15c; Oil City 30c; Pittsburg, 20c; Bradford, 10c.

Market Aug. 11, 1887—58⅝@59½c.

Saturday, Aug. 11.

All life appeared to have dropped out of trade, though there were a few who were apparently anxious to secure a little oil, and they were made to pay what by most of the traders was considered a high price. The first sale was effected at 87c, but there were few sellers, and so business dragged slowly for over an hour, until some of the bidders began to raise their offers. The price was then run up to 87¾c before the bidders' wants were supplied, and as no further support was received, the price receded as rapidly as it had before advanced, touching 86¾c just before the close, while the final figure was 86⅞c, making a loss for the day of ⅛c under a range of 1c. Trading was very light, the sales aggregating only 310,000 bbls. From the producing fields it was reported that the White well was pumping at the rate of 25 to 30 bbls. a day, The Hilton No. 6 showed for a moderate producer. The Nineveh well had declined to 150 bbls. a day. The Mt. Morris Alexander No. 2 had stopped.

The half-hourly quotations were as follows:

A. M.		A. M.	
10:00	87	11:00	86⅞
10:30	86⅞	11:30	87¾
		12:00	86⅞

The clearances were as follows: New York, 2,304,000; Oil City, 2,100,000; Pittsburg, 2,762,000 Bradford 560,000; Philadelphia, 435,000; total clearances Aug. 11, 8,161,000 bbls.

Carrying rates were: New York, 15@20c: Oil City, 15@20c; Pittsburg, 30c; Bradford 20@25c.

Market Aug. 12, 1887—59⅜@60¾c.

Monday August 13.

The weakness developed on Saturday continued this morning, and the first sale, made at 86⅝c, showed a further shrinkage of ¼c. The opening price was also the highest of the day, the figures declining steadily at first, but later fluctuated frequently a few points from 86c. The day proved dull and featureless, with the trading almost exclusively confined to operations between the regular frequenters of the pit, who operated for quick turns, During the last half hour a raid was made which resulted in bringing the lowest price of the day down to 85c, and efforts were made to force the figure still lower, but without success, as there were too many purchasers at that figure, and the close developed rather more strength with the final figure 85¼c. This made a loss for the day of 1⅝c while the range to fluctuations was 1⅝c. Trading was light and resulted in sales of only 887,000 bbls. The field news was not important' The Davis No. 5 was expected to reach the sand to-day, as was also the Smith farm well at Canonsburg. The Murphy well at Brush Creek was doing 25 bbls a day from the "blue Monday" sand.

The half-hourly quotations were as follows:

A. M.		P. M.	
10:00	86⅝	12:30	85⅞
10:30	86	1:00	86⅛
11:00	86⅛	1:30	85⅞
11:30	86	2:00	86
12:00	85¾	2:30	85¾
		3:00	85¼

The clearances were as follows: New York, 1,410,000; Oil City, 2,080,000; Pittsburg, 2,070,000 Bradford, 1,172,000; Philadelphia, 398,000; total clearances August 13, 7,130,000 bbls.

Carrying rates were: New York, 20@25c; Oil City, 30@35c; Pittsburg, 20@25c; Bradford, 30c.

Market August 13, 1887—60⅞@62⅝c.

Tuesday, Aug. 14.

The first sale effected this morning was at 85¼c and this also remained the highest price of the day. The news from the producing region, while really unimportant, was regarded by many as threatening, and a feeling of weakness was the prevailing one, There were but few buyers at 85c or over and the market gradually declined nowithstanding efforts were occasionally made to arrest the downward course. There was little improvement in trading until the figures dropped to 84½c, when some of the longs became nervous and sought to unload, their efforts only accelerating the decline. Considerable oil changed hands as the figures droped below 84c, and there was also considerable scalping, though the latter was checked on the drop below 84c. In the afternoon the announcement was made of a further decline in refined, which caused the few remaining longs to lose heart, and then followed a bear raid, which succeeded in making the lowest price of the day 82⅝c, and this also proved to be the closing figure. This made a loss for the day of 2⅝c,and this also represented the extreme range to quotations. Trading was fair and during a part of the day quite active, resulting in sales of 1,919,000 bbls. From Washington came the report that the Davis No. 5 was five bits in the sand but not far enough for the pay streak. The Fergus wildcat on Welsh farm at Beallsville was in the Gordon sand and so far showed for a dry hole. The Campbell well on the Gibson farm was gasing strong in the third sand.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	85¼	12:30	85⅛
10:30	84⅞	1:00	84⅛
11:00	84¾	1:30	83⅞
11:30	85⅛	2:00	83¼
12:00	85¼	2:30	83¼
		3:00	82⅝

The clearances were as follows: New York, 3,218,000; Oil City, 2,760,000; Pittsburg, 3,464,000; Bradford, 1,150,000; Philadelphia, 530,000; total clearances August 14, 11,112,000 bbls.

Carrying rates were: New York, 20@25c; Oil City, 30c; Pittsburg, 25c; Bradford, 20@25c.

Market Aug. 15, 1887—60@61¾c.

The amount of daily sales and total for the week follow:

Date.	Bbls.
Aug 8	1,974,000
" 9	1,390,000
" 10	655,000
" 11	310,000
" 13	887,000
" 14	1,919,000
Total for the week	7,135,000

Following is given the opening, highest, lowest and closing figures for each day, in tabulated form for comparison:

	Opening.	Highest.	Lowest.	Closing.
Aug 8	88¼	89½	87	87¼
" 9	87⅛	88⅝	86½	86¾

" 10	87	87¾	86¾	86¾
" 11	87	87¾	86¾	86⅞
" 13	86⅝	86⅝	85	85¼
" 14	85¼	85¼	83⅝	83⅝

The total clearances during the week at the several petroleum exchanges foot up as follows:

New York		24,626,000
Oil City	18,914,000	
Pittsburg	20,884,000	
Bradford	8,650,000	
Philadelphia	3,417,000	
		51,865,000
Total		76,491,000

The market for refined in barrels for export has not shown the activity so prominent a feature during the two preceding weeks, although the demand has been good. Shippers claim that the urgent demand has been supplied, and now that a reaction in the speculative market for certificates has set in they are disposed to await developments, which they expect will tend in their favor. The continued high rates asked for desirable vessels also has a tendency to restrict the placing of orders. The sales during the week foot up about 150,000 barrels. The price remained firm at 7¾c for 70° Abel test until Saturday afternoon, when it was reduced to 7⅝c and to-day it was further reduced to 7½c for all loadings. The principal foreign markets show a further advance, to-day's quotations by cable being:—Bremen, 8 00m; Antwerp, 21f; London, 7⅛@7¼d, and Liverpool, 7¼@7⅜d. The rates for freight are still higher, and 3s 6d is now the rate hence to London, while to continental ports the range is 3s 9d@4s 6d as to port and vessel. Home trade lots have been in moderate request and are somewhat easier. We quote 8¾@8⅞c for State legal test; 8¼@8½c for 110 test; 8¾@8⅝c for New York City 100° flash, and 8⅞@9½c for 150° water white. Western lots are quoted at about the same figures.

Cases for export continue to receive but little attention and the total sales reported do not exceed 60,000. The price has been reduced to 9½c. for plain tops; Freight rates continue to advance, while the supply of desirable vessels still inadequate. The nominal rates for large vessels are: For Java, 40@41c; Japan, 32@33c; Calcutta, 22@23c; Bombay, 24@25c; Rangoon, 28@29c; Singapore, 32@33c; Hong Kong, 30@31c; and for Shanghae, 31@32c.

Crude in barrels for export has been in light demand, and sales of only about 20,000 barrels are reported, Prices were advanced on Wednesday to 6⅝@7c, but were to-day again reduced to 6½@6¾c for Bradford and Parker respectively. Cases for export continue neglected, and no sales are reported. Prices are steady at 8¼@8¾c.

Prime city naphtha has been steady and firm at 7¼c. For export there has been a light demand, and only a few small sales are reported.

Western residuum, 42@51° test, is quoted at 1¾@2c f. o. b. Barrels are quoted at 5¼@5¾c, No sales are reported for export.

Closing Quotations.

CRUDE.

National Transit Certificates ₱ bbl.	82⅝@	82¾
In bbls ₱ gal.	6¼@	6¾
In cases	8½@	8⅞
Residuum, bbls, for export 18@22°.	5½@	6
for domestic use f o b	1¾@	2

REFINED, IN BARRELS.

Cargo lots, Abel test ₱ gal.	7½@	—
Philadelphia loading	7½@	--
Baltimore loading	7½@	—
50 bbl lots, f. o. b. or on dock	8¼@8⅜	
10 bbl lots, f. o. b. or on dock	8⅜@8⅞	

HIGH TEST OILS—JOBBING LOTS.

110 fire test, S. W ₱ gal.	8¾@	—
120 fire test, S. W	8⅜@	—
130 fire test, S. W	8⅝@	—
State test	8¾@	—
150 fire test, W.W	8⅞@	9¼
300 fire test	10¼@	11½
New York city, 100 flash		8⅜

REFINED IN CASES, 110 FIRE TEST.

Two-five, low screw, 10,000 lots	9¼@	—
5,000 to 10,000	9¼@	9¾
1,000 to 5,000	9¾@	10
200 to 1,000	10 @	10¼
Under 200	10¼@	10½

NAPHTHA AND GASOLINE.

Naphtha, crude, cargo lots, 68@72 deg	—@	7¼
Naphtha, crude, car lots, 68@72 deg	7⅜@	7½
Naphtha, crude, 70 deg	8¼@	9⅛
Sweet, 62 deg	8½@	9½
70 deg	9 @	10
76 deg	9½@	10½
Gasoline, 86 deg	13 @	14
88 deg	15 @	16
90 deg	18 @	19

EMPTY PETROLEUM BARRELS.

Cargoes, spot	$1 02½@	1 05
Domestics, on dock	1 00 @	1 02½
Subject to inspection	1 05 @	—

Petroleum Statistics.

RUNS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Aug. 6	41,244	214,880	35,813
Tues. " 7	45,011	259,891	37,127
Wed. " 8	41,236	301,127	37,641
Thurs. " 9	43,716	344,843	38,316
Frid. " 10	48,877	393,720	39,372
Sat. Sun. 11 & 12			
January, 1888		1,048,641	33,827
February		1,175,102	40,529
March		1,193,133	38,488
April		1,200,977	40,032
May		1,301,015	41,968
June		1,289,616	42,987
July		1,260,486	40,660
August, 1887		1,745,629	56,311
September		1,648,421	54,947
October		1,751,676	56,506
November		1,125,390	37,513
December		1,223,648	39,472
Year, 1887		20,209,983	55,315

DELIVERIES—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Aug. 6	88,833	402,303	67,050
Tues. " 7	65,614	467,917	66,845
Wed. " 8	49,278	517,195	64,649
Thurs. " 9	60,095	577,250	64,139
Frid. " 10	86,867	664,117	66,411
Sat.Sun. 11&12			
January, 1888		2,225,975	71,806
February		2,115,803	72,938
March		1,980,963	63,902
April		1,830,522	61,017
May		1,676,794	54,090
June		1,677,330	55,911
July		1,933,873	62,383
August, 1887		2,118,647	68,343
September		2,140,295	71,343
October		2,383,707	76,894
November		2,403,307	80,777
December		2,419,617	78,052
Year, 1887		25,519,175	69,916

CHARTERS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge.
Mon. Aug. 6	26,984	261,825	45,637
Tues. " 7	45,079	306,904	43,843
Wed. " 8	107,023	413,927	51,741
Thurs. " 9	7,539	421,466	46,830
Frid. " 10	20,476	441,942	44,194
Sat. Sun. 11&12	41,905	483,847	40,321
January, 1888		914,199	29,490
February		1,199,169	41,351
March		998,923	32,223
April		973,208	32,440
May		1,257,607	40,568
June		1,219,188	40,640
July		1,339,147	42,908
August, 1887		1,647,254	53,138
September		1,302,513	43,417
October		1,411,578	45,542
November		1,120,709	37,357
December		1,011,903	32,655
Year, 1887		15,204,735	41,657

CHARTERS FOR THE WEEK.

The total charters for refined in barrels and cases, crude in barrels and cases, naphtha, &c., during the week ending August 14, were as follows:

Refined, bbls	168,800
Refined, cs	62,000
Crude, bbls	19,700
Crude, cs	....
Naphtha, bbls	2,200
Residuum, bbls	....
Lubricating	....
Total, crude equivalent	311,009

CLEARANCES FOR THE WEEK.

During the week ending August 13, the clearances of petroleum, in gallons, from the port of New York were as follows:

Refined	4,508,992
Crude	812,739
Naphtha	154,828
Residuum	....
Total	5,476,559

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons, for the week ending August 4; also, the total shipments to date, with comparisons with 1887:

Exports from New York for week ending Aug. 4	15,199,356
Total exports from New York from Jan. 7, 1888	254,269,876
Same period last year	285,252,303
Decrease	30,982,427
Exports from U. S. for week ending Aug. 4	21,704,453
Total exports from U. S. from Jan. 1, 1888	343,534,716
Same period last year	385,108,716
Decrease	41,573,645

TOTAL EXPORTS FROM DIFFERENT PORTS.

	1888.	1887.
New York	254,269,876	285,252,303
Philadelphia	83,545,263	84,862,096
Baltimore	2,634,801	3,927,033
Boston	1,354,403	1,066,929
Perth Amboy	1,713,533	....
San Francisco	16,840	....
Grand total	343,534,716	385,108,361

CAPACITY OF VESSELS LOADING.

The following table gives the capacity of the vessels loading petroleum at the ports of New York, Philadelphia, Baltimore and Boston on August 13:

	NEW YORK.		PHILADELPHIA.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	243,900	167,000	68,900	190,500
Crude	34,900	....	49,400	....
Naphtha	8,300	....	11,300	....
Total	287,100	167,000	129,600	190,500
	BALTIMORE.		BOSTON.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	4,000	....	7,900	....
Crude	....	....	....	....
Naphtha	....	....	....	....
Total	4,000	....	7,900	....

Exports of Petroleum from New York

REFINED.

COUNTRIES.	Week Ending Aug. 13. Gals.	Jan. 1 to Aug 6, 1888. Gals.	Jan. 1 to Aug 8, 1887. Gals.
Africa, Liberia	....	25,653	22,040
Sierre Leone	....	50	....
South Africa	....	839,855	1,016,875
Zanzibar	....	353,500	300,000
Algiers	....	1,197,140	895,870
Arabia	....	190,000	1,150,000
Argentine Republic	60,000	1,797,953	2,192,750
Australia	41,960	5,677,475	2,741,611
Austria	....	14,155	....
Belgium	345,000	18,361,002	17,631,404
Brazil	91,825	5,594,517	3,678,279
British East Indies, Aden	....	445,000	270,000
Burmah	....	1,992,980	1,737,850
India	....	17,162,840	13,831,380
Penang	....	630,000	....
Singapore	....	1,016,440	1,676,760
British Guiana	49	200,000	378,371
British West Indies, Antigua	400	28,850	22,600
Barbadoes	551	241,405	145,870
Basse Terre	110	41,110	108,354
Bermuda	3,293	75,092	68,134
Domenica	580	7,040	19,890
Jamaica	2,000	400,087	242,859
Montserrat	300	3,150	2,800
Nassau	....	42,734	34,296
St. Lucia	1,350	21,336	12,802
St. Vincent	....	19,945	25,745
Trinidad	....	181,260	165,781
All others	4,050	45,105	15,924
Canary Islands	....	69,750	86,440
Central America, Belize	....	39,086	44,262
Costa Rica	....	59,772	36,348
Guatamala	....	44,478	65,696
Honduras	....	18,050	24,116
Nicaraugua	....	110,756	175,526
San Salvador	....	43,730	61,112
Chili	....	2,363,000	1,012,165
China, Cochin	470,000	1,926,750	1,930,546
All other	....	9,568,850	9,720,128
Cuba	1,100	431,342	412,838
Danish West Indies	1,250	31,124	35,269
Denmark	99,391	2,663,000	3,042,991
Dutch East Indies, Java	698,520	11,618,520	11,885,280
Macassar	....	73,140	256,000
Sumatra	....	325,000	330,000
Dutch West Indies	1,250	69,912	60,803
Dutch Guiana	....	94,581	20,400
Ecuador	....	93,150	73,970
England	1,288,303	22,924,902	27,723,897
Egypt	....	498,150	3,124,990
France	....	721,256	1,413,754
French Guiana	3,000	14,100	12,970
French West Indies	5,000	273,827	230,855
Germany	633,436	49,689,151	43,208,519
Gibraltar	....	327,000	547,419
Greece	....	....	120,000
Hawaiian Islands	....	100,000	39,640
Hayti	501	239,949	354,937
Ireland	229,900	1,718,657	3,141,463
Italy	....	627,987	1,203,651
Japan	....	6,381,610	7,544,110
Mexico	....	55,430	695,234
Malta	....	120,880	473,000
Mauritius Island	....	14,750	....
Netherlands	....	12,805,531	22,627,912
North America, New Brunswick	35,351	329,284	342,401
New Foundland	14,957	148,271	110,938
Nova Scotia	....	93,181	98,006
Prince Ed. Island	....	55,000	68,250
Norway and Sweden	130,933	3,730,895	4,654,399
Peru	....	210,829	98,858
Porto Rico	31,750	409,195	355,505
Phillippine Islands	....	317,000	222,640
Portugal	....	700,648	397,080
Reunion	....	74,500	72,030
Russia	....	145,820	95,874
Scotland	....	....	....
Siam	282,350	674,700	530,680
Spain	....	175,700	762,190
Turkey	....	435,764	1,599,794
U. S. of Col	532	452,757	354,837
Uruguay	30,000	870,790	2,103,320
Venezuela	....	505,704	641,701
Wales	....	143,766	....
Total	4,508,992	191,284,932	2.2,633 009

CRUDE.

COUNTRIES.	Week Ending Aug. 13. Gals.	Jan. 1 to Aug 6. 1888. Gals.	Jan. 1 to Aug 8. 1887. Gals.
Australia	....	....	....
Austria	....	....	....
Belgium	....	....	....
Brazil	....	....	....
British Guiana	....	....	....
British West Indies	....	248	....
Chili	....	....	10,000
Central America	....	....	499
Cuba	30,183	1,861,749	3,088,361
Danish West Indies	....	....	....
Dutch West Indies	....	....	....
England	....	....	213,217
France	782,556	11,579,130	9 183,933
Germany	....	1,230,503	1,084,659
Hawaiian Islands	....	....	2,525
Mexico	....	707,240	500,839
British North America	....	....	....
Norway and Sweden	....	187,230	....
Spain	....	7,548,282	5,421,307
Uruguay	....	....	....
Total	812,739	22,956,277	19,524,340

NAPHTHA.

CGUNTRIES.	Week Ending Aug. 13. Gals.	Jan. 1 to Aug 6. 1888. Gals.	Jan. 1 to Aug 8. 1887. Gals.
Africa	....	....	96
Algiers	....	....	5,000
Argentine Republic	....	1,625	....
Australia	....	48	....
Belgium	....	223,244	184,500
Brazil	....	12,540	120,831
British West Indies	....	....	198
Central America	....	....	....
Chili	....	237	....
Cuba	....	....	....
Denmark	....	....	....
England	....	1,923,208	2,278,065
France	154,823	963,467	909,406
Germany	....	525,360	....
Hayti	....	....	10
Ireland	....	....	5,118
Mexico	....	....	....
british North America	300	1,500	1,800
Norway and Sweden	....	348,873	342,240
Portugal	....	4,850	475
Russia	....	....	....
Turkey	....	....	....
Uruguay	....	....	....
Venezuela	....	....	19,000
Total	154,823	4,019,952	3,866,739

Foreign Statistics.

REFINED QUOTATIONS.

		Bremen.	Antwerp.	London.
Wed.	Aug 8.	7.90	20½@20⅝	7 @7⅛
Thur.	" 9.	8.00	21 @—	7⅛@7¼
Fri.	" 10.	8.00	21 @—	7⅛@7¼
Sat.	" 11.	8.00	21 @—	7⅛@7¼
Mon.	" 13.	8.00	21 @—	7⅛@7¼
Tues.	" 14.	8.00	21 @—	7⅛@7¼

STOCKS, RECEIPTS AND SHIPMENTS.

The statistical situation at the seven principal continental ports on July 28, was:

	1888.	1887.
Stock, July 28	543,225	831,949
Afloat "	158,529	244,16
Loading "	139,200	231,800
Total	840,954	1,307,915
Receipts July 21 to July 28	144,090	87,605
Rc'ts July 1, '88, to July 28, '88.	407,907	555,216
Shipments July 21 to July 28	67,138	61,038
Shp's July 1, '88, to July 28, '88	236,793	195,771

At London the statistical situation on the same date was made up as follows:

	1888.	1887.
Stock, July 28	114,044	163,844
Afloat "	39,000	14,955
Loading "	19,300	22,500
Total	172,344	206,299
Receipts July 21 to July 28	22,000	14,000
Rec's July 1, '88, to July 28, '88	48,000	111,995
Shipments July 21 to July 28	8,674	11,487
Shp'ts July 1, '88, to July 28, '88	39,581	39,671

Petroleum Charters.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston:

NEW YORK.	Bbls. Refd.
May 4	
Am sh Farragut, Japan, p t.....cs	60,000
June 5	
Br sh Falls of Halladale, Calcutta, pt..cs	80,000
June 22	
It bk Alfredo, Java or Singapore, p t.cs	30,000
July 2	
Br bk Sarah Chambers, Hamb'g, 2s 3¾d.	6,000
July 5	
Br bk Marian, Hamburg, p t..	7,500
Br bk Cedar Croft, Baltic, p t.	7,000
July 6	
Am sh E W Stetson, Hamburg or Rotterdam, 2s 6d	7,300
Swed bk Noami, Sweden, 2s 11d	4,200
Nor bk Alice, Baltic, p t	6,000
It bk Antoinetta, Java, 30 & 31c ...cs	34,000
Ger bk Bremerhaven, Continent, 2s 5d	6,000
Ger sh J Weissenhorn, Continent, 2s 6d	13,000
July 9	
Ger sh Favorita, Bremen or Hamburg, 2s 9d	7,800
July 10	
Br ship St. James, Japan, p t.....cs	55,000
July 13	
Am sh Glendon, Japan, p t.....cs	65,000
It bk Francesca, U K, p t	4,300
Ger sh Deutschland, Continent, p t	7,500
Ger bk Germania, Cont or Baltic, p t	5,000
Ger bk Betty, Cont or Baltic, p t	4,500
July 14	
Br bk Laura Emily, U K, p t	4,500
July 16	
Am sh Saml. Scolfield, Calcutta, 20½c..cs	60,000
Nor str Odin, Baltic, 3s 6d	3,000
July 17	
Am bk Wm Hales, Singapore, 32½c....cs	27,000
July 18	
Span str Catalan, Liverpool, 2s 10½d	8,000
July 19	
Aus bk Lincoln, Cette, 3s 7½d.....cde	5,000
July 20	
Ger ship Barbarossa, Continent, p t	8,500
Br bk Bristol, U K or Cont, p t	8,500
Ger bk Atlantic, Continent, p t	7,500
Ger ship Dorn, Continent, p t	7,000
Ger ship Oberon, Continent, p t	8,000
Ger bk Marie, Continent, p t	8,000
Ger ship Camelia, U K or Cont, p t	7,500
Br bk Abram Young, Baltic, p t	4,500
July 23	
Br bk Lewis Smith, U K or Cont, pt	6,500
Br bk Nova Scotia, U K or Cont, pt	6,500
Am sh L A Nichols, Japan, 33c....cs	50,000
Ger str Hafis, Hamburg, o's acc	14,500
July 24	
Swed bk Ida, Continent, p t	7,800
Ger shp Dora, Bremen or Hamburg, p t.	8,700
Br bk Galatea, Continent, p t..	8,000
Ger bk Astronom, Continent, p t	5,300
Am shp Wildwood, Japan, p t.....cs	60,000
It bk Plinio, Java, p t.....cs	45,000
It bk Rosa, Waterford, 3s 6d	3,000
Br sh Silberhorn, Liverpool, 3s	11,000
Br bk Savannah, Bristol, 3s 6d.	4,500
Ger bk Stralsund, Ger Baltic, 3s 6d	3,500
July 25	
Dtch bk Brinio, Harlingen, 3s 6d	3,000
Nor bk Persia, London or Liverpool, p t.	10,000
Nor sh Ragna, Baltic, 4s 1½d	6,800
July 26	
Nor bk Aurora, Baltic, pt	3,000
Br bk J. C. Williams, Bordeaux, 4s 1¼d nap	5,500
Am sh Chas. Dennis, Calcutta, pt.....cs	60,000
Br sh Cuba, Sables d'Olonne, 4s 3d....nap	2,700
July 27	
Ger bk Geo Washington, Bremen or Hamburg, p t.	4,500
Swed bk Naomi, Baltic, p t	7,000
Br sh Beaconsfield, Antwerp or London, 3s	10,000
Br bk Veronica, Continent, p t,	9,500
Br sh Avonia, Continent, p t	10,500
Nor str Carl Know, Baltic, 3s 6d	2,500
July 28	
Ger bk Chas. Lulling, Continent, p t	7,600
Aus bk Leonora, China sea, p t.....cs	55,000
It bk Domenico, Bristol, p t	3,600
Br sh Vandalia, U K or Cont, p t	9,700
Br sh Constance, U K or Cont, p t	10,600
Br sh Marlborough, U K or Cont, p t. ..	8,000
Br sh Z King, U K or Cont, 3s 3d	8,400
Br sh Harvest Queen, London, 3s	12,000
Br sh Cumberland, U K or Cont, p t	9,500
Br bk Peacemaker, U K or Cont, 3s 3d	6,700
Br bk Wolfe, Havre, 4s 3d.....cde	6,000
July 30	
Nor bk Queen of the East, U K or Cont, pt	7,500
Nor bk N P Nielsen, Baltic, 4s 6d, or Bergen, 4s 3d	3,000
Br bk Wm K Chapman, Cont, pt..	7,100
Dtch bk Melati, Cont, pt	6,600
Nor bk Alice, Cont, pt	5,800
Nor bk Lorley, Baltic, pt	3,300
Nor sh B D Metcalf, Cont, pt	7,800
Nor sh N B Palmer, Cont, pt	6,400
Bk ——, Irish port, 4s	4,500
July 31	
Aus bk Agostino C, Cette, 3s 10½d....cde	5,500
Br sh Austria, London, 3s	12,000
It bk Giovannina, Marseilles, 3s 6d....cde	2,800
Br sh Revolving Light, Bristol, 3s 3d	8,500
Am bk Agate, Irish port, 3s 9d	3,500
Nor bk Ajax, Cont, pt	5,100
Nor bk Tordenskjold, Cont, pt	7,500
Br str India, L'pool, port cargo, pt	4,000
Aug 1	
Swed bk Freia, Baltic, p t	4,000
Nor bk Ariadne, Bergen, 2s 11d	4,000
Nor bk Arracon, Danish port, 3s 3d	4,500
Ger bk Cuba, Continent, 3s 3d	7,200
Am bk Edward Kidder, Penang or Singapore, p t.....cs	32,000
Nor bk Italia, Baltic, 4s	5,100
It bk Francesca R, Marseilles, 3s 6d..cde	3,000
Br sh Corsica, Continent, p t	7,500
Nor bk Normanvik, Baltic, 4s 3d@4s 6d..	4,500
Aug 2	
It bk Domenico, Bristol, 3s 7½d	3,600
Br bk Levuka, Cont, 3s	9,000
Br sh J I Smith, London or Ant'p, 3s 3d..	8,400
Ger str Minister Maybach, Bremen, o's acc't.....tank	20,000
Aug 3	
Br str Hungaria, Rouen, 4s 3d.....cde	7,500
Br sh Br America, Bordeaux, 4s 3d...cde	6,000
Br bk W K Chapman, Hamburg, 3s 9d....	7,100
Br bk Scotland, Cont, pt	9,000
Br sh Beethoven, Cont, pt	6,000
Br sh Servia, Continent, p t	8,500
Br sh Conductor, London or Antwerp, p t	7,000
Br bk Nimbus, U K or Continent, p t	7,500
Nor str Welhaven, Norway, 3s 7½d, or Denmark or Sweden, 3s 10½d	3,000
Nor str Ydun, Norway, 3s 7½d, or Denmark or Sweden, 3s 10½d	3,000
Aug 4	
It bk Fortunata, Marseilles, 4s.....cde	2,500
Ger str Marsala, Hamburg, 4s	12,000
Br bk Henry Buschmann, Plymouth or Exmouth, 4s	3,500
Br sh Record, L'pool or Bristol, 3s 4½d..	12,000
Ger str Wilkommen, Bremen o's acc	23,000
Ger bk Blucher, Bremen, Hamburg or Antwerp, 3s 3d@3s 4½d	7,200
It bk Rosina, Plymouth or Exmouth, 4s 3d	2,500
Aug 6	
Br bk Avoca, U K or Cont, p t	9,500
Am sh Caravan, Rotterdam or Antwerp, 3s 6d	9,200
Br str Peconic, Liverpool, 3s 9d	10,000
Br str Strathleven, China or Japan, p t.....cs	20,000
Aug 7	
Ger bk Christel, Continent, 3s 9d	5,500
Br bk M & E Cox, Bristol, p t	7,000
Nor str Liberta, Baltic, 4s 6d	2,200
Br str Ardanach, Baltic, 4s 4½d	3,500
Am bg Elizabeth Winslow, U K, 4s 3d	2,200
Br bk John Trakey, Antwerp, Rotterdam or Amsterdam, 3s 7½d	7,600
Br sh McDougall, Antwerp, Rotterdam, or Amsterdam, 3s 7½d	7,100
Nor str Gambetta, Baltic, p t	2,500
Nor str Viking, Baltic, p t	2,500
Br sh Joseph, Continent, 3s 3d	10,000
Br bk Landskrona, Continent, 3s 3d	8,500
Br sh Ellerslie, London, 3s 6d	9,000
Aug 8	
Br bk Harriet Hickman, Hamburg or Antwerp, 4s	5,200
Br bk Peacemaker, London, 3s 6d	6,700
Nor bk Queen of the East, U K or Cont, p t	7,000
Am sch James Boyce, Bordeaux, 4s 6d.cde	4,000
Nor str Balder, Baltic, 4s 6d	2,400
Br str Broomhaugh, Antwerp, Amsterdam or Rotterdam, 4s 3d	11,000
Aus bk Errante, St Louis du Rhone, 4s 6d.....cde	3,000
Br bk Nariva, Irish port, 4s 1½d	3,000
Am sh St Paul, Bristol, 3s 9d	10,000
Br sh Annie E Wright, Antwerp, 3s	11,000
Br bk Canute, Continent, p t	7,500
Br bk Granville Bell, Continent, p t	6,800
Br bk Snow Queen, Continent, p t	6,000
Br bk Annie J Marshall, Continent, p t..	6,500
Br sh Colchester, U K or Cont, p t	8,500
Br bk Truro, U K or Cont, p t.	5,400
Am bk Jessie McGregor, U K, 4s	3,500
Am bk Obed Baxter, Java, p t.....cs	32,000
Swed bk Axel Westfelt, Ger Baltic, 5s	3,300
Aug 9	
It bk ——, Marseilles, 4s.....cde	4,000
Aug 10	
Am bk Brazos, Java, 40@41c.....cs	30,000
Am bg Amy A Lane, Bristol, p t	2,400
It bk Gemma C, Java, p t.....cs	28,000
Aug 11	
Nor bk Alice, Baltic, 3s	6,000
Ger str Hans & Kurt, Hamburg, o's acc.....tank	18,000
Aug 13	
Am bg Ernestine, Plymouth or Exmouth, 4s 3d	2,500
Ger bk Betty, Stettin, 4s 10d	4,800

PHILADELPHIA.

May 21	
Am sh John Currier, Japan, p t.....cs	70,000
June 1	
Nor bk Beta, Baltic, 3s .....cde	6,000
June 28	
Swed sh Edward, Cont, pt	8,000
July 2	
Grk bk Hawkeye, Cagliari, f o, 15c.....cs	18,000
Ger bk Victoria, U K or Cont, pt	4,700
It bk Arcangelo, Medit, pt.....cs	25,000
July 6	
Nor bk Ghent, Baltic, pt	4,000
July 11	
Br bk Barbadian, Java, 30@31c.....cs	25,000
July 12	
Br bk Werner, Java, 32½c.....cs	30,000
Ger sh Senator Iken, Continent, p t	7,000
Ger sh Doris, Continent, p t	6,500
July 14	
Dan sh Atalanta, Hamburg, 2s 6d	7,000
July 18	
It bk Marinin, Medit, p t.....cs	33,000
July 19	
Nor bk Karsten, Langaard, Baltic, p t...	4,000
July 20	
Ger sh Cleopatra, Continent, p t	6,560
Ger bk Derby, C nt, p t	6,700
Ger bk Victoria, Cont or Baltic, p t	5,000
Br sh Otago, Havre, 3s 6d.....cde	7,000
July 23	
Br bk Harvester, Blaye, 3s 9d.....cde	4,200
It bk Battaglia, Medit, p t.....cs	20,000
July 24	
Ger bk Matthias, Continent, p t	6,900
Br bk Strathome, Java, p t.....cs	40,000
July 25	
Ger sh Doris, Bremen, p t.....cde	7,500
Ger sh Otto, Continent, p t	8,300
July 26	
Nor bk Beta, Baltic, p t	5,700
Nor bk Ragnhild, Baltic, p t	3,000
Ger bk Libertas, Baltic, p t	2,500
Ger bk Laura Maria, Baltic, p t	3,000
Nor bk Embla, Baltic, p t	3,000
Nor bk Josephine, Baltic, p t	5,500
July 27	
Br sh Sapphire, Continent, p t	7,500
It bk Concezione, Cagliari, f o, 16½c...cs	15,000
July 28	
Br str Saragosso, Rouen, 4s .....cde	11,000
Br bk Louise Adelaide, Dunkirk, 4s 6d .....cde	3,700
July 30	
Ger sh Derby, Continent, p t	6,800
Ger bk Agnes, Hamburg, p t	5,000
July 31	
Ger sh Cleopatra, Hamburg, 2s 1½d	7,600
Aug 1	
Ger sh Sophje, Continent, p t	7,700
Aug 2	
Dtch bk Helena, Hamburg, p t	7,000
Am bk Walter S Massey, Gloucester, 3s9d	3,300
Br bk Scots Bay, Continent, 3s 6d	6,400
Br bk Kedron, London, 2s 3d	7,500
Aug 3	
Br bk J W Oliver, Stettin or Dantzic, 4s 7½d	4,600
Aug. 4.	
Am bk Justin H. Ingersoll, Bristol, 4s	3,500
Ger bk Victoria; U Kor Cout(p t	4,700
Ger sh Favorita, Continent, p t	7,200
Ger sh Johann Friedrich, Continent, p t.	7,200
Ger str Ovel Goenne, Hamburg, o's acc.	20,000
Nor bk Ganger Rolf, Stockholm, 5s..nap	2,500
Aug. 6.	
Am bk Atalaya, Rouen, 4s 9d.....nap	2,500
Br bk Enigma, Dunkirk or Rouen, pt.cde	4,000
Aug 7	
Nor bk Orion, U K or Cont, p t.	6,000
Aug 8	
Am bg Screamer, Havre, dt.....cde	3,000
Am bk Bonny Doon, Havre, 4s 4½d..cde	3,500
Aug 9	
Ger bk Konig Carl, Ger Baltic, 5s 3d	2,500
Am bg Lahaina, Havre, 4s 6d.....cde	3,000
Aug 11	
Am bk Neptune, Havre, 4s 6d. .....cde	3,200
Br bk Roland, St Loubes, 5s.....nap	2,200
Aug 13	
Nor bk Ragnhild, Scandinavian port, p t	3,500

BALTIMORE

July 14	
Ger sh Baltimore, Bremen or Hamburg, 2s 6d	7,000
Ger sh Agra, Hamburg, 2s 7½d	6,000
July 20	
Ger sh Frederike, Bremen or H'burg, pt	9,000
July 21	
Ger sh Stassfurt, Hamburg, pt	10,500
Br bk Chas E Lefurgey, Hamburg, 2s 9d.	6,000
Ger bk Ceylon, Cont, pt	4,000
Ger bk Louise & Auguste, Hamburg, pt.	7,000

BOSTON

July 12	
Nor bk Nina, Norwegian port, 2s 8d	3,000
July 23	
Nor bk Triton, Baltic, pt	2,400
Nor bk Grigua, Baltic, pt	1,800
Aug 7	
Nor bk Elizabeth Ahrens, Baltic, 3s 9d...	2,500
Aug 8	
Nor bk Platon, Baltic, p t	3,000

Petroleum Clearances.

(See page 40.)

The stream of crude petroleum which was started from Lima, Ohio, three weeks ago, to fill the two great tanks at South Chicago, began pouring into the reservoirs shortly after midnight Monday morning. The oil has since been flowing at the rate of 8,000 barrels a day. Each tank has a capacity of 35,000 barrels. The iron receptacles now being built will hold as much as those which are being filled. The oil is pumped through an 8-inch pipe, 206 miles long, and is designed for heating purposes. When necessary, the supply of oil by the pipe line can be increased to 24,000 barrels per day. This is accomplished by relay tanks, which are built along the route of the pipe, and which are kept filled. The water which was sent through the pipe as a test of its security abruptly ceased flowing at 12:10 A. M. Monday. Then came the thick and yellowish petroleum. The switch pipe was immediately turned to one of the vast tanks, and with a splash the first natural oil ever delivered in Chicago, except by rail or by way of the lakes, had arrived. It will take about nine days to fill the two tanks now completed. In the mean time side tracks will be laid up to their sides and shipping will be done at once.

Recent Patents.

387,613. PROCESS OF TREATING NATIVE SODA. Issued Aug. 7, 1888.

Claim.—In the within-described process of treating natural soda, first making a saturated or approximately saturated solution of the natural or crude soda in hot fresh water, then clearing the solution by allowing it to settle, then straining it while hot and allowing it to partially cool in a separate vessel or vessels and to crystallize therein, afterward running it off into another vessel or vessels and allowing it to further cool and again crystallize, and finally freeing the separated bicarbonate of soda from mother liquor and drying it.

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IMPORTS, EXPORTS, DOMESTIC RECEIPTS, Etc.

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION.

DURING THE WEEK ENDING AUGUST 11, 1888.

ACID—5 cs, 625lb, T Weicker, Rotterdam, Rotterdam
5 cks, 1,100lb, Heller & Merz, Noordland, Antwerp
CARB—15 cs, F J Macnaughtan, Servia, L'pool
1 cs, 100lb, McKesson & R, Hammonia, Hamburg
PHOS—2 cs, 200lb, T Weicksr, Rugia, Hamburg
CITRIC—25 kgs, 2,800lb, W R Peters & Co, Denmark, Lon
SAL—22 cs, 2,200lb, McKesson & R, Hammonia, Hamburg
8 cs, 800lb, Schulze-Berge & K, Noordland, Antwerp
PICRIC—10 cs, 560lb, R Holliday's Sons, Wyoming, L'pool
ALBUMEN—1 ck, 1,126lb, J C Bloomfield & Co, Wyoming, L'p'l
ALKANET ROOT—32 bls, 3,106lb, J Clay, Gefion, Marseilles
ALIZARINE—25 pgs, 7,385lb, Lutz & Movius, Noordland, Ant'p
ALCOHOL—2 cs, 6 gls, L W Morris & Son, La Gascogne, Havre
ALIZARINE—60 cks, 11,046 lb, Pickhardt & K. Rotterdam, Rotterdam
ALOES—100 cs, 8,000lb, Foulke & Co, G B Lockhart, Curacoa
ALUMINA SULPH—370 cks, 111,000 lb, E H Watson, J Breydel, Antwerp
AMMONIA MURI—15 cks, 19,416 lb, J L & D S Riker, Celtic, Liverpool
CARB—47 cks, 12,373lb, W R Van Konghurst, England, Liverpool
20 cs, 4,480lb, R F Downing & Co, S of Georgia, Glasgow
ANNATTO SEED—1 bbl, 77 lb, G Wessels & Co, Vertumnus, Pt Maria
2 bbls, 340lb, Macy & Dunham, Ailsa, Jamaica
3 pgs, 278lb, Leaycraft & Co, Ailsa, Jamaica
ANTIMONY—5 bbls, 4,318lb, Stallman & F, India, Trieste
ANILINE COLORS—1 cs, 11 lb, Jessup & Moore P Co, Nevada, Liverpool
70 pgs, Pickhardt & K, Rotterdam, Rotterdam
15 cks, 1,10 lb, W J Matheson & Co, Eider, Bremen
10 cks, 1,000lb, Geisenheimer & Co, Eider, Bremen
2 kgs, 200lb, Lutz & Movius, Wyoming, L'pool
3 cks, Pickhardt & K, Eider, Bremen
20 pgs, 2,500lb, Sykes & Street, La Normandie, Havre
4 cs, 700lb, P H Karcher, La Normandie, Havre
2 cks, 442lb, R Holliday's Sons, Wyoming, L'pool
5 pgs, 802lb, J J Keller & Co, Noordland, Antwerp
16 pgs, 1,550lb, A Klipstein, Noordland, Antwerp
3 bbls, 990lb, Lutz & Movius, Noordland, Antwerp
4 cks, F Bredt & Co, Noordland, Antwerp
34 pgs, 4,644lb, E Schibach & Co, Noordland, Antwerp
5 pgs, 500lb, W J Matheson & Co, Helvetia, London
22 pgs, 2,300 lb, W J Matheson & Co, La Bourgogne, Havre
44 pgs, 5,400lb, W J Matheson & Co, Aller, Bremen
OIL—1 dm, 1,050lb, R Holliday's Sons, Galileo, Hull
25 dms, 21,192lb, Roessler & H, Noordland, Antwerp
10 dms, 10,960lb, Pickhardt & K, Noordland, Antwerp
SALT—14 cs, W J Matheson & Co, Denmark, London
20 cks, 11,167lb, Pickhardt & K, Noordland, Antwerp
15 cs, W J Matheson & Co, Helvetia, London
ARCHIL—22 bbls, 10,276lb, Bavier, M & Co, La Normandie, Havre
ARGOLS—24 cks, 23,555lb, N Y Tartar Co, Servia, L'pool
74 pgs, 20, 31lb, Loeb & Bro, India, Trieste
201 bgs, 50,024lb, N Y Tartar Co. Broomhaugh, Messina
20 bgs, 5,588lb, Loeb & Bro, Wyoming, L'pool
42 cks, C Pfizer & Co, Broombaugh, Messina
RED—88 bgs, 25,032lb, Stamford Mfg Co, C of Richmond, Liverpool
ARSENIC—20 kgs, 2,200lb, M Koenigsheim, Galileo, Hull
ARROWROOT—300 tins, Howland & A, C A Sparks, St Vincent
BARIUM PEROXIDE—7 cks, 2,362lb, B P Ducas & Co, Rugia, Hamburg
15 cs, Rogers & Pyatt, Rugia, Hamburg
NITRATE—20 bbls, Rogers & Pyatt, Rugia, Hamburg
BERRIES—7 bgs, 1,017lb, J Clay, L Monarch, London
BARK EXT—1 bbl, 587lb, Welsh & Lee, Suevia, Hamburg
BALSAM COP—5 bbls, Dodge & Olcott, Jerome, Para
BARYTA NITRATE—30 pgs, 5,626lb, F J Macnaughtan, Denmark, London
BISMARK BROWN—1 keg, 120lb, Anchor Color Co, Anchoria, Glasgow
BLEACH—233 cks, 221,520lb, J L & D S Riker, England, L'pool
BONES—55 bbls, 8,507lb, D A DeLima & Co, G B Lockhart, Curacao
BRIMSTONE—1,600 tons, A S Malcomson, Broombaugh, Licata
200 tons, J F Boyd, Peconic, Girgenti
482 tons, Parsons & Petit, Peconic, Girgenti
BRISTLES—3 pgs, 1,142lb, F W Von Stade, Rugia, H'burg
12 cks, 4,533lb, H Kroehl, Rugia, Hamburg
2 cks, 911lb, Lewishon Bros, Eider, Bremen
9 cs, 1,985lb, J W Mills & Co, La Normandie, Havre
13 pgs, 3,272lb, J R Katz, Aller, Bremen
1 ck, 549lb, F W Van Stade, Denmark, London
7 cs, 839lb, Lewisohn Bros, Denmark, London
BRONZE POWDER—2 cs, S Ullman, Rugia, Hamburg
2 cs, 600lb, J Marsching & Co, Rugia, Hamburg
3 cs, 1,540lb, G H Barbey, Rugia, Hamburg
14 cs, T Reissner, Eider, Bremen
5 cs, Perry & Ryer, Eider, Bremen
3 cs, J Marsching & Co, Eider, Bremen
3 cs, A S Sartorius & Co, Eider, Bremen
5 cs, 1,200lb, Fuchs & Lang, Hammonia, Hamburg
1 cs, K Schmidt & Co, Aller, Bremen
13 cs, 6,500lb, J Sachs, Aller, Bremen
2 cs, 640lb, J Marsching & Co, Hammonia, Hamburg
CALAMUS ROOT—8 bls, 2,200lb, M Koenigsheim, Geiser, Dan'g
CANARY SEED—1,000 bgs, 263,193lb, J D Nordlinger, Celtic, Liverpool
CARAWAY SEED—100 bls, 10,780lb, H Nordlinger & Co, Galileo, Hull
CANTHARIDES—2 cs, 443lb, Stallman & F, India, Trieste
CACHOU DE LAVAL—10 cs, 1,100lb, Sykes & Street, La Normandie, Havre
CAPSICUM—35 bgs, E R Durkee & Co, Denmark, London
CEMENT—500 bbls, Eckmeyer & Co, Queen of the East, Stettin
600 bbls, Batjer & M, Marsala, Hamburg
600 cks, J W Binney, Denmark, London
1,000 cks, E Thiele, Noordland, Antwerp
750 cks, Marcial & Co, Denmark, London
100 cks, Hammill & G, S of Georgia, Glasgow
575 bbls, Empire Warehouse, Hammonia, Hamburg
1,100 cks, H Fleming, Denmark, London
1,120 cks, E Thiele, Hammonia, Hamburg
600 bbls, J W Binney, T Hill, London
CHAMOIS—4 cs, T L Lutkins, Celtic, Liverpool
1 cs, Veil Bros, Servia, Liverpool
CHAMOMILES—8 cs, 1,052lb, Lehn & Fink, Marsala, Hamburg
5 cks, 1,483lb, J Zeller, Rugia, Hamburg
5 cks, 1,203lb, M Koenigsheim, Galileo, Hull
2 bls, 210lb, Lehn & Fink, Helvetia, London
CHEMICALS—72 pgs, T Weicher, Rotterdam, Rotterdam
12 cks, T Weicker, Rugia, Hamburg
32 cs, Roessler & H, Jan Breydel, Antwerp
20 cks, Gabriel & S, Marsala, Hamburg
15 cs, Lehn & Fink, Hammonia, Hamburg
10 cs. Lutz & Movius, Aller, Bremen
CHILLIES—18 bgs, E R Durkee & Co, Denmark, London
CHINESE BLUE—3 cs, H Kohnstamm & Co, Denmark, London
CLOVES—98 bls, 12,419lb, E J Lowry, Denmark, London
100 bls, S W Phyfe & Co, Denmyrk, London
5 cs, Groat & K, Denmark, London
COCA LEAVES—15 bls, 2,140lb, J P Read & Co, San Marcos, Panama
COCAINE—1 cs, 176 ozs, Schoelkopf, H & M, Rugia, Hamburg
COCHINEAL—20 bgs. W R Peters & Co, Germanic, Liverpool
COLOMBO—4 bgs, 565lb, Lehn & Fink, T Hill, London
CROCUS—15 cks, 13,577lb, J L Smith & Co, Galileo, Hull
COAL TAR PROD—4 cs, Roessler & H, Aller, Bremen
COLORS—10 cks, G W Sheldon & Co, Galileo, Hull
15 pgs, 7,055lb, Pickhardt & K, Rotterdam, Rotterdam
10 cks, 1,100lb, Gabriel & S, Marsala, Hamburg
2 pgs, W & H Erdtman, Eider, Bremen
19 pgs, R Mayer & Co, Eider, Bremen
4 cs, A Sartorius & Co, Eider, Bremen
12 cs, S Ullman, Eider, Bremen
4 pgs. H Kohnstamm & Co, Eider, Bremen
4 cs, R Mayer, & Co. Aller, Bremen
1 cs, S Ullman, Hammonia, Hamburg
CHROME—1 ck, 254lb, G H Morrill & Co, Marsala, Hamburg
CORKS—1 bl, F Llado & Co, C Margaux, Bordeaux
3 bls, H Cahn & Co, Eider, Bremen
CORIANDER SEED—148 bls, 32,524lb, Stallman & F, India, Trieste
CUDBEAR—6 cks, 3,866lb, W A Ross & Bro, Servia, Liverpool
10 cks, 7,002lb, W J Matheson & Co, Denmark, London
CUTCH—25 cs, 2715lb, T K Cummins & Co, England, Liverpool
968 bgs, Ralli Bros. Glendon, Calcutta
CUTTLEFISH—5 stps, 2,096lb, McKesson & R, India, Trieste
16 stps, 1,054lb, R Hillier's Son Co, India, Trieste
COLCOTHAR—50 kgs, 5,000lb, C T Raynolds & Co, B City, Bristol
DIVI DIVI—155 bgs, 15,140lb, D A DeLima & Co, G B Lockhart, Curacao
302 bgs, 27,722lb, Suzarte & W, G B Lockhart, Curacao
DOG GRASS—26 bls, 4,400 R Brueckner & Co, Marsala, H'burg
DOGWOOD BARK—26 bls, 1,317lb, W R Warner & Co, Ailsa, Jamaica
1 bl, G H Daily, Ailsa, Jamaica
DRUGS—3 bls, 560lb, Lehn & Fink, Helvetia, London
DUTCH PINK—25 kgs. 2,806lb, J L Smith & Co, Galileo, Hull
METAL—8 cs, 4,400 Isaacs V & Co, Eider, Bremen
1 cs, A Sortorius & Co, Eider, Bremen
3 cs, Fuchs & Lang, Hammonia, Hamburg
1 cs, K Schmidt & Co, Aller, Bremen
DYEWOOD EXT—7 bbls, A Klipstein, India, Fiume
DEXTRINE—10 cks, 4,758lb, A P Mende, Rugia, Hamburg
FENNEL SEED—15 bls, 3,315lb, R Hillier's Son Co, India, Triest
FULLERS EARTH—10 tons, L A Salomon & Bro, B City, Bris
FRANKFORT BLACK—7 cks, 3,795lb, C Wix & Co, Rotterda Rotterdam
FUSTIC—9,900lb, J Menendez & Bro, A E Rickerson, Neuvitas
GALLS—27 bgs, 4,257lb, R Hillier's Son Co, India, Trieste
GELATINE—20 cs, 2,000lb, H Martin, Rotterdam, Rotterdam
GENTIAN—5 bls. 1,000lb, Lehn & Fink, Helvetia, London
GINGER—4 bbls, 553lb, G Wessels & Co, Vertumnus, Pt Maria
149 bbls, G DeCordova, Andes, Jamaica
70 bbls, 7,000lb, Gomez & P, Phebe, Aquadilla

5 bbls, 639lb, Macy & D, Ailsa, Jamaica
53 bbls, A S Lascelles & Co, Ailsa, Jamaica
1 bbl, 121lb, Leaycraft & Co, Ailsa, Jamaica
25 pgs, 2,500lb, R Goodwin, Ailsa, Jamaica
4 bbls, 600lb, Macy & D, Ailsa, Jamaica

GLASS MIRROR—11 cs 6,618 ft, Whittemore Bros, Rotterdam, Rotternam
10 cs, 1,596 ft, Kaufman & S, Rugia, Hamburg
2 cs, 923 ft, Vanhorne, G & Co, Rotterdam, Rotterdam
12 cs, 3,235 ft, S Bache & Co, Rotterdam, Rotterdam
2 cs, 515 ft, W B Denison, Eider, Bremen
34 cs, 10,975lb, S Bache & Co, Noordland, Antwerp
37 cs, 7,287lb, P Weiderer & Bro, Hammonia, H'burg

ENAMELED—112 cs, S Kommel, Noordland, Antwerp
107 cs, P Semmer, Noordland, Antwerp

CATHEDRAL—13 cs, 6,769lb, Vanhorne, G & Co, Ethiopia, Glasgow

GROUND—50 cs, Dougherty, E & M, J Breydel, Antwerp
170 cs, J F Heyne, J Breydel, Antwerp

MOLDED—28 cs, 8,892lb, Heroy & M, Wyoming, L'pool

PLATE—55 cs, 14,157 ft, H H Cahn, Westernland, Antwerp
2 cs, 669 ft, Von Praag & Co, J Breydel, Antwerp
1 cs, Holbrook Bros, Wyoming, Liverpool
2 cs, 59 ft, T W Morris & Co, Wyoming, L'pool
5 cs, 833 ft, J Zahn & Son, Noordland, Antwerp
1 cs, Holbrook Bros, England, Liverpool
6 cs, 1,768 ft, H H Cahn, Noordland, Antwerp
2 cs, 647 ft, Sanweine & Co, Noordland, Antwerp
16 cs, 7,358lb, S Bache & Co, Noordland, Antwerp

ROLLED—15 cs, 12,394 lb, Holbrook Bros, England, Liverpool

ROUGH—22 cs, 16,152 lb, P Semmer & Co, England, Liverpool

WINDOW—810 cs, 41,940lb, Thorn & Rogers, J Breydel Antwerp
1,305 cs, 71,160lb, Dougherty, E & M, J Breydel, Antwerp
595 cs, 33,425lb, N Cowen & Son, J Breydel, Antwerp
325 cs, 18,800lb, J F Heyne, J Breydel, Antwerp
69 cs, 4,110lb, Merchants Dispatch, J Breydel, Antwerp
10 cs, 5,103lb, J Fitzpatrick & Co, Ethiopia, Glasgow
60 cs, 4,800lb, T W Morris & Co, Wyoming, L'pool
3,608 cs, 191,600lb, J Fitzpatrick & Co, Noordland, Ant'p
495 cs, 25,560lb, Thorn & Rogers, Noordland, Antwerp
79 cs, 14,242lb, Holbrook Bros, England, L'pool
190 cs, 9,500lb, Vanhorne, G & Co, England, L'pool
10 cs, 5,355lb, S Bache & Co, England, L'pool
22 cs, Holbrook Bros, Wyoming, L'pool
193 cs, 22,078lb, Heroy & M, Wyoming, L'pool
2,319 cs, 131,550lb, T W Morris & Co, Noordland, Antw'p
1,105 cs, 30,000 lb, Holbrook Bros, Noordland, Antwerp
70 cs, 5,600lb, J F Heyne, Noordland, Antwerp

GLUE—40 cks, 40,326lb, B W Jones, Galileo, Hull
12 cs, 9,272lb, S Isaacs & Co, Marsala, Hamburg
140 bgs, Milligan & Higgins Glue Co, B City, Bristol
87 pgs, 23,683lb, A K Gardiner & Bro, B City, Bristol
1 ck, 294lb, S Isaacs & Co, C of Berlin, Liverpool
20 cs, 16,119lb, S Isaacs & Co, Rotterdam, R'dam
20 cks, 12,161lb, C Townsend, C of Richmond, L'pool
11 cks, 6,514lb, A E Reimann, Denmark, London

GLYCERINE REF—10 cs, 1,120 lb, Schering & G, Hammonia, Hamburg

GUM—1 ck, 266lb, J Clay, L Monarch, London
ARABIC—90 pgs, 40,022lb, J Zipcy, India, Trieste
37 cs, 9,696lb, Spencer & Co, Denmark, London
BENZION—2 cs, 341lb, G Lueders, Umbria, Liverpeol
COPAL—82 bgs, 14,091lb, A Mason, Denmark, London
59 pgs, 12,257lb, Walker Gum Co, Denmark, London
CHICLE—9 bgs, 1,630lb, Thebaud Bros, C of Washiugton, Vera Crnz
132 pgs, 25,504lb, J W Wilson & Co, C of Washington, Vera Cruz
46 bgs, 7,768lb, L Monjo Jr & Co, C of Washington,
DAMAR—86 cs, 12,308lb, Walker Gum Co, P Caland, A'dam
GUAIAC—8 bbls, 1,400lb, H Becker & Co, Ailsa, Pt au Prince
MYRRH—1 cs, 341lb, J Clay, L Monarch, London
SENEGAL—225 bgs, 43,630lb, Thurston & B, C of Richmond, Liverpool
132 bgs, 18,370lb, Thurst on & B, England, Liverpool
TUNO—15 bgs, 1,500lb, Eggers & H, Carib, Belize

GOLD SIZE—2 cs, 50 gls, T Howard, Denmark, London
GREASE—3 bbls, 139 gls, G K Harroan, Greece, London
HEMPSEED—227 bgs, 43,780lb, Rosenstein Bros, Galileo, Hull
HOREHOUND—6 bls, 1,115lb, Lehn & Fink, Helvetia, London
INSECT FLOWERS—40 bgs, 4,410lb, Thurston & B, India, Trieste
POWDER—50 kgs, 6'331lb, Thurston & B, India, Trieste
1 cs, E Fougera & Co, Noordland, Antwerp
INDIGOTINE—1 cs, 50lb, J J Keller & Co, Noordland, Antwerp
IRON OXIDE—67 pgs, J L Smith & Co, Galileo, Hull
50 bbls, 33,600lb, E S Morris, B City, Bristol
65 pgs, 18,049lb, E S Morris, India, Tr.este
LAUREL LEAVES—25 bls, 10,991lb, Weaver & S, India, Trieste
8 bls, 4,079lb, R Hillier's Son Co, India, Trieste
BERRIES—10 bgs, 2,191lb, R Hillier's Son & Co, India, Trieste

LEMON JUICE—50 pps, 6,657 gls, Powers & W, Broomhaugh, Messina
2 ppg, 266 gls, R Brueckner & Co, Peconic, Messina

LIVERWORT HERB—32 bls, 7,458 lb, M Koenigsheim, Galileo, Hull

LEECHES—4 cs, F Paturel & Co, La Normandie, Havre

LOGWOOD—20 tons, Eggers & Heinlein, Carib, Belize
348,800lb, Kunhardt & Co, Rose C, Cape Hayti
465½ tons, Perkins & Welsh, Daisy, Sav-La-Mar
100,000lb, Jimines, H & Co, Rosa C, Pt de Paix
41 tons, E P Hemenway, G W Clyde, San Domingo
260 tons, Thackray & Co, M E Dana, Jeremie
26 tons, E Ripke, G W Clyde, San Domingo
600,000lb, H Kainer & Co, G W Clyde. Pt de Paix
150,000lb, E C Klindworth, G W Clyde, Pt de Paix
EXT—15 cks, 6,932lb, J J Keller & Co, Noordland, Antwerp
ROOT—10¾ tons, Perkins & Welsh, Daisy, Sav-La-Mar

LYCOPODIUM—2 cs, 440lb, R Brueckner & Co, Marsala, H'burg
3 cs, 916lb, F J Macnaughton, Denmark, London

LUMINOUS PAINT—1 cs, 110lb, G A & E Meyer, Wyoming, Liverpool

MAGNESIA CARB—21 pgs, 2,554 lb, McKesson & R, Servia, Liverpool

MAGNESIUM—1 cs, 10lb, F J Macnaughton, Denmark, Loudon

MANGANESE—16 cks, A L Salt, California, Hamburg
26 cks, 11,311lb, J F Whitney & Co, Clifton, Windsor

BORATE—5 pgs, H Kohnstamm & Co, Eider, Bremen

MANURE SALT—500 bgs, H J Baker & Bro, Marsala, Hamburg
1,524 bgs, W R Peters & Co, Marsala, Hamburg
1,000 bgs, Heller, H & Co, Polynesia, Hamburg

MACE—11 cs, 2,219lb, E R Durkee & Co, Denmark. Lonpon

MEAT EXT—33 cs, Eisner & Mendelson Co, Noordland, Antwerp

MATCHES—35 cs, P Barnard & Co, Galileo, Hull

MILK SUGAR—42 pgs, 11,750 lb, R Brueckner & Co, Marsala, Hamburg

MUSK—1 cs, Dodge & Olcott, Denmark. London
1 cs, 168 ozs, Lanman & K, Helvetia, London
1 cs, 114 ozs, G Lueders, Umbria, Liverpool

NAPHTHALINE—10 cks, 2,402lb, T Weicker, Rotterdam, R'dam

NUTMEGS—64 cs, 4,242lb, Bidwell & F, Denmark, London
50 cs, 3,334lb, J R Townsend & Co, Denmark, London

OCHER—175 cks, 123,224lb, J L Smith & Co, Galileo, Hull
35 cks, 22,100lb, Overton & Co, C of Richmond, L'pool
57 cks, 38,351lb, J L Smith & Co, Gefion, Marseilles
100 cks, 75,802lb, W E Browne & Co, Gefion, Marseilles

OIL BERGAMOT—6 cs, 128lb, T Leeming & Co, Peconic, Messina
50 cs, Dodge & Olcott, Peconic, Messina
ALMOND—5 cs, 800lb, W H Schieffelin & Co, Denmark, London
ANGELICA—1 cs. 12lb, L & J Michaelis, Eider, Bremen
EUCALYPTUS—1 cs, 12lb, L & J Michaelis, Eider, Bremen
CASSIA—4 ozs, H Warrick, La Normandie, Havre
COCOA—69 cks, 110,880lb, J W Greene, Ind.a, Trieste
CORIANDER—1 cs, 25lb, J B Horner, Eider, Bremen
GERANIUM—2 1-5lb, H Warrick, La Normandie, Havre
JUNIPER—10 cs, Dodge & Olcott, India, Trieste
LAVENDER—26 cs, 2,275lb, Lanman & K, Britannia, Marseilles
LEMON—100 cs, Dodge & Olcott, Peconic, Messina
20 cs, 427lb, T Leeming & Co, Peconic, Messina
25 cs, 570lb, E Hills's Son & Co, Peconic, Messina
20 cs, R F Downing & Co, Peconic, Messina
15 cs, Thurber, W & Co, Peconic, Messina
MENTHOL—2 cs, 200lb, F J Macnaughtan, Denmark, London
MYRBANE—40 pgs, 6,240lb, W J Matheson & Co, Denmark, London
MACE—1 cs, 30lb, L & J Michaelis. Eider, Bremen
NEROLI—11lb, H Warrick, La Normandie, Havre
1 cs, 12lb, L & J Michaelis, La Normandie, Havre
OLIVE—1 bbl, 40 gls, R Garguilo, India, Naples
129 bbls, 6,330 gls, W C Benedict, Broomhaugh, Messina
10 bbls, 500 gls, G Lueders, Buffalo, Hull
ORANGE—20 cs, Dodge & O, Peconic, Messina
9 ozs, H Warrick, La Normandie, Havre
13 cs, R F Downing & Co, Peconic, Messina
PALM—16 cks, 23,321lb, R Crooks & Co, England, L'pool
PATCHOULI—1 cs, 6lb, L & J Michaelis, Eider, Bremen
PETIT GRAIN—11lb, H Warrick, La Normandie, Havre
RAPE—135 bbls, F E Brugman & Co, Viola, Hamburg
15 bbls, F E Brugman & Co, Slavonia, Stettin
ROSE—9 ozs, H Warrick, La Normandie, Havre
3 cs, 800 ozs, G Lueders, Umbria, Liverpool
SANDAL—13lb, H Warrick, La Normandie, Havre
3 cs, 110lb, J B Horner, Eider, Bremen
VIOLET—9 ozs, H Warrick, La Normandie, Havre
YLANG YLANG—2 cs, 350 ozs, G Lueders, Umbria, L'pool

ORANGE PEEL—10 bls, 5,546lb, Stallman & F, India, Trieste
35 bls, 7,780lb, R Hillier's Son Co, India, Trieste

LEAD—16 cks, 11,807lb, Gabriel & S, J Breydel, Antwerp

ORRISROOT—24 bls, 4,644lb, L Bernard & Co, India, Trieste

PEPPER—177 bgs, 21,813lb, J W Phyfe & Co, Denmark, London
159 bgs, 21,897lb, E R Durkee & Co, Denmark, London

PERFUME—6 cs, F R Arnold & Co, La Normandie, Havre
11 cs, 49 gls, Park & Tilford, La Normandie, Havre

PERU BARK—56 pgs, Cardenas, Coe & L, Andes, Baranquilla
22 pgs, 2,200lb, Punderford & Co, Andes, Savanilla

PIMENTO—54 bgs, 8,070lb, Macy & Dunham, Ailsa, Jamaica
11 bgs, A S Lascelles & Co, Ailsa, Jamaica
8 bgs, 1,089lb, Leaycraft & Co, Ailsa, Jamaica

POLISH POWDER—50 cks, Borsum Bros, India, Tornitz

POPPY SEED—100 bls, 11,025lb, Rosenstein Bros, Rotterdam, Rotterdam

FLOUR—25 bgs, 5,000lb, B Ruhl, Rugia, Hamburg

POTASH CAUSTIC—50 dms, 27,736lb, E Hill's Son & Co, J Breydel, Antwerp

FUSED—1 cs, Rogers & Pyatt, Rugia, Hamburg

MURI—489 bgs, 109,536 lb, H H Salmon & Co, Slavonia, Hamburg
1,000 bgs, Heller, H & Co, Polynesia, Hamburg

PRUSS—58 cks, 37,883lb, Roessler & H, Marsala, Hamburg
10 cks, 5,370lb, D A Griffen, Marsala, Hamburg
25 cks, 12,500lb, C De P Field, S of Georgia, Glasgow

SULPH—508 bgs, W R Peters & Co, Rugia, Hamburg
3,048 bgs, 672,000lb, W R Peters & Co, Polynesia, H'burg

QUASSIA—200 pcs, Pim, Forward & Co, Ailsa, Kingston

QUICKSILVER—100 flks, Pfeiffer & L, Denmark, London

QUININE—5 cs, 5,000 ozs, St John Bros, Eider, Bremen
5 cs, 5,000 ozs, J Clay, Eider. Bremen
9 cs, 9,000 ozs, McKesson & R, Eider, Bremen
50 cs, 25,000 ozs, J L & D S Riker, Eider, Bremen
5 cs, 5,000 ozs, St John Bros, Aller, Bremen
32 cs, 14,000 ozs, L Englehorn, Aller, Bremen
10 cs, 10,000 ozs, Roessler & H, Aller, Bremen

ROOTS—10 bgs, J Clay, L Monarch, London

RHUBARB—65 cs, Dodge & Olcott, Denmark, Lendon

ROSE LEAVES—2 bls, 273lb, Lehn & Fink, Helvetia, London

SAGO—300 bgs, 66,660lb, Levy & Levis, J Breydel, Antwerp
160 bgs, 35,200lb, Levy & Levis, Noordland, Antwerp

SAPANWOOD—10½ tons, Stamford Mfg Co, C of Richmond, Liverpool

SARSAPARILLA—120 bls, 15,790lb, Houdley & Co, Carib, Truxilio
88 pgs, 13,273lb, Eggers & H, Carib, Truxillo

SAVORY LEAVES—9 bls, 1,175lb, J Clay, Gefion, Marseilles

SENNA—5 bls, 1,406lb, Lehn & Fink, T Hill, London

SHELLAC—80 cs, G B Morewood & Co, Denmark, London
250 cs, N Y Shellac Co, Denmark, London
100 cs, Knudson P & Co, Denmark, London
10 kgs, 500lb, F J McNaughton, Denmark, London

SIENNA—1 csk, 355lb, H Kohnstamm & Co, Eider, Bremen

SOAP CASTILE—250 bxs, 9,085lb; Stallman & F, Gefion, M'lles
1,268 bxs, 44,035lb, H J Batjer & Bro, Gefion, M'seilles

SODA ARSEN—10 cks, 10,147lb, Baldwin Bros, C of Richmond, Liverpool

ASH—202 cks, 282,928lb, J L & D S Riker, Servia, L'pool
119 cks, 224,404lb, J Lee & Co, C of Richmond, L'pool
178 cks, 316,661lb, Wing & Evans, England, L'pool
205 cks. 338,272lb, R Crooks & Co, England, Liverpool

CARB—140 bbls, 56,000lb, J L & D S Riker, Celtic, L'pool

CAUSTIC—200 dms, 130,000lb, T M Marc, Celtic, L'pool
50 dms, 32,500lb, T M Marc, Servia, Liverpool
300 dms, 195 000lb, E Hill's Son & Co, C of Richmond
50 dms, 32,963lb, R Crooks & Co, England, L'pool
200 dms, 131,243lb, J Lee & Co, England, Liverpool Liverpool

BISULPHITE—1 drum, Rogers & Pyatt, Rugia, Hamburg

NITRATE—6,756 bgs, W R Grace & Co, E L Mayberry, Iquique

OXALATE—10 kgs, 427lb, F J Macnaughton, Denmark, London

PHOSPH—1 bbl, Rogers & Pyatt, Rugia, Hamburg
2 cks, Schulze-Berge & K, J Breydel, Antwerp
16 cks, A Klipstein, Ethiopia, Glasgow

SAL—160 cks, 71,680lb; Wing & Evans, England, Liverpool
374 kgs, 56,100lb, R Crooks & Co, Wyoming, Liverpool

SPONGE—20 cs, Lasker & B, Rugia, Hamburg
1 cs, Lasker & B, Waesland, Antwerp
8 bls, Eggers & H, Carib, Belize
100 cs, Lasker & B, Denmark, London
31 bls, C A Salmon & Co, C of Washington, Havana
19 bls, Sebess Sponge Co, G W Clyde, Turks Island

STRONTIA NITRATE—52 pgs, 12,827lb, F J Macnaughtan, Denmark, London

SULPHUR LAC—6 bbls, 1,200lb, F J Macnaughton, Denmark, London

STYRAX—6 cs, 595lb, Lehn & Fink, Helvetia, London

SUMAC—280 bgs, 44,800lb, Core & H, Peconic, Palermo
LEAVES—13 bls, 5,779lb, C E Gerli, Son & Co, Broomhaugh, Messina
EXT—105 cks, 55,449lb, P H Karcher, India, Trieste

TALC—3 cs, 493lb, E Mansell & Co, Denmark, London

THYME LEAVES—2 bls, 410lb, Lehn & Fink, Helvetia, London
10 bls, 1,465lb, J Clay, Gefion, Marseilles

TERRA ALBA—200 cks, 226,996lb, F A Reichard, Gefion, Marseilles

TUSCAN RED—105 pgs, 30,817lb, J L Smith & Co, Galileo, Hull

ULTRAMARINE—20 cks, 4,480lb, Jessup & Moore Paper Co, Marsala, Hamburg
9 pgs, 4,600lb A B A sbacher & Co, J Breydel, Antwerp

PURE LOGWOOD EXTRACTS SOLID AND LIQUID. W. A. ROSS & BRO., 58 PINE ST., NEW YORK.

CARBONATE OF AMMONIA.
Chlorate of Potash.
Oxalic Acid.
Zinc Dust. (Indigo Auxiliary.)
Blood and Egg ALBUMEN.
ANILINE COLORS.

Schulze-Berge & Koechl,
75 PINE STREET, NEW YORK.
IMPORTERS OF CHEMICALS AND DYESTUFFS,
AND SOLE AGENTS FOR
Salol, pat'd, the new Antiseptic.
Made under License of the ...ntees of Dr. F. v. Heyden, nachf. Radebeu.

MIRBANE OIL.
Pure Aniline Oil & Salt
SALICYLIC ACID.
Archil Extract.
Indigo Extract.
ALIZARINE.

ABRAM De RONDE & CO.
Dyewood Extracts,
Archil,
Indigo,
Sumac,
Bark,
Chestnut
Hemlock,
Cudbear,
Sumac American,
Sumac Sicily,
Gambier,
Cutch,
Divi Divi,
Nut Galls

Importers and Manufacturers
Chemicals AND Dyestuffs.

12 Cedar Street, New York.
Tin Crystals,
Stannate Soda,
Muriate Tin,
Oxy Mur. Tin,
Oxy Mur. Antimony,
Antimony Salts,
Nitrate Copper,
Nitrate Iron,
Iron Liquor,
Prussiate Potash, Red
" " Yel
Oxalic Acid,
Glauber Salt,
Fullers Earth,

1 cs, 560lb, G H Morrill & Co, Marsala, Hamburg
5 cks, 2,800lb, J C Wemple & Co. Eider, Bremen
4 pgs, 1,568lb, G A & E Meyer, Denmark, London
VANILLA BEANS—12 cs, 1,687lb, L Brandeis & Co, C of Washington, Tuxpan
40 cs, 4,990lb, P Harmony's Nephew & Co, C of Washington, Vera Cruz
8 cs, 1,060lb, Thebaud Bros, C of Wash, Vera Cruz
4 cs, 442lb, P Harmony's Neph & Co, Panama, V Cruz
9 cs, 1,125lb, H Marquardt & Co, Panama, Havana
VARNISH—2 cs, 50 gls, T Howard, Denmark, London
4 pgs, C B Richards & Co, C of Chicago, L'pool
VERMILION—1 cs, 240lb, G H Morrill & Co, Marsala, Hamburg
VENETIAN RED—150 bbls, 50,400lb, J L Smith & Co, Galileo, Hull
VENICE TURPENTINE—14 bbls, 5,668lb, Stallman & F, India, Trieste
WASH BLUE—5 cs, A B Ansbacher & Co, J Breydel, Antwerp
25 cs, J P Smith, La Normandie, Havre
WHITE LEAD—5 cks, 3,023lb, H Kohnstamm & Co, Eider, Bre'n
85 pgs, 14,560lb, C T Raynolds & Co, Denmark, London
YELLOW BERRIES—10 bgs, 2,605 lb, T K Cumins & Co, England, Liverpool
ZINC OXIDE—150 bbls, 33,069lb, G A & E Meyer, J Breydel, Antwerp
50 bbls, 11,023lb, H W Henning & Son, Noordland, Ant'p

WAREHOUSED.

ANILINE COLORS—18 cks, C Georgi, Rotterdam, Rotterdam
57 pgs, Pickhardt & K, Rotterdam, Rotterdam
4 cks, C Georgi, Eider, Bremen
9 pgs, 900lb, Sykes & Street, La Normandie, Havre
18 pgs, 1,750lb, Schulze-Berge & K, Noordland, Antw'p
27 pgs, F Bredt & Co, Noordland, Antwerp
38 pgs, E Schlbach & Co, Noordland, Antwerp
BRONZE POWDER—4 cs, Hoffman & O, Eider, Bremen
BRISTLES—22 cks, 8,835lb, Hueseman & Co, Rugia, Hamburg
5 cs, 992lb, L J Glaenzer, La Normandie, Havre
2 cks, 285lb, L Weil & Bro, Eider, Bremen
CACHOU DE LAVAL—5 cs, 550lb, Sykes & Street, La Normandie, Havre
CELERY SEED—73 bgs, 15,435lb, Stallman & F, Gefion, Marseilles
CHEMICALS—5 cs, C Georgi, Rotterdam, Rotterdam
CEMENT—500 cks, Behrend & T, H Hickman, Stettin
GLASS MIRROR—7 cs, 3,676ft, S Binswanger & Co, Rotterdam, Rotterdam
32 cs, 16,663ft, Vanhorne, G & Co, Rotterdam, R'dam
9 cs, 5,240 ft, S Bache & Co, Noordland, Antwerp
OIL CODLIVER—50 bbls, 1,500 gls, J Clay, Galileo, Hull
OPIUM—8 cs, 1,227lb, McKesson & R, Servia, Liverpool
POTASH BICH—50 cks, 38,301 lb, J L & D S Riker, England, Liverpool
SOAP CASTILE—500 bxs, 18,520lb, J D Nordlinger, Gefion, Marseilles
SODA CAUSTIC—100 dms, 64,484lb, J Lee & Co, England, L'pool
VERMILION—10 kgs, A B Ansbacher & Co, Hammonia, H'burg

IMPORTS AT CHICAGO.

Week ending Aug. 11, 1888.

BRUSHES—4 cs, Fuller & Fuller
3 cs, Lord. Owen & Co
COLORS—20 kgs, Coffin, Devoe & Co
GLASS WINDOW—4 cs, J H Rice & Co
PHOSPHATES—2 cars, North Western Fertilizing Co

IMPORTS AT MONTREAL.

Week ending August 11, 1888.

ALUM—128 bbls, Bellhouse, Dillon & Co, Oxenholme, L'pool
ALUMINA SULPH—16 cks, Bellhouse, Dillon & Co, Panama, Newcastle
32 cks, Bellhouse, Dillon & Co, Fremona, Newcastle
BLEACH—42 cks, Bellhouse, Dillon & Co, Oxenholme, L'pool
BORAX—2 cks, Bellhouse, Dillon & Co, Oxenholme, L'pool
17 bbls, Wood & Leggatt, Oxenholme, L'pool
CEMENT—1,250 cks, B & S H Thompson, Wandrahm, Hamburg
300 cks, W & F P Currie, Assyrian, London
CLAY—30 cks, Wum & Holland, Wandrahm, Hamburg
COLORS—16 cks, A Muirhead, Lake Nepigon, L'pool
4 pgs, order, Wandrahm, Hamburg
COPPER SULPHATE—85 cks, order, Oxenholme, L'pool
GELATINE—5 cks, order, Wandrahm, Hamburg
GLYCERINE—10 cs, London Drug Co, Wandrahm, Hamburg
GLUE—4 pgs, Burdland Lith Co, Wandrahm, Hamburg
LEAD SUGAR, BROWN—9 cks, order, C Leoville, Havre
WHITE—7 cks, order, Wandrahm, Hamburg
LOGWOOD—100 bgs, order, Oxenholme, L'pool
OIL CASTOR—15 cks, order, Oxenholme, L'pool
LINSEED—450 cks, order, Oxenholme, L'pool
150 cks, order, Assyrian, London
35 cks, Wm Johnson & Co, Assyrian, London
OLIVE—10 bbls, D Masson & Co, Oxenholme, L'pool
SODA BICARB—100 kgs, J W Lang & Co, Lake Nepigon, L'pool
ASH—20 cks, J Fisher & Son, Oxenholme, L'pool
54 cks, order, Lake Nepigon, L'pool
14 cks, W & F P Currie, Lake Nepigon, L'pool
14 cks, W M Angus & Co, Lake Nepigon, L'pool
12 cks, Dalton Bros, Lake Nepigon, L'pool
CAUSTIC—100 dms, Wilson, Paterson & Co, Lake Nepigon, Liverpool
173 dms, order, Lake Nepigon, L'pool
100 dms, Bellhouse, Dillon & Co, Oxenholme, L'pool
ULTRAMARINE—12 cks, order, Wandrahm, Hamburg
WHITE LEAD—56 cks, order, Wandrahm, Hamburg
22 cks, order, Wandrahm, Hamburg
WHITING—150 cks, Bellhouse, Dillon & Co, Assyrian, London
2,500 cks order, Assyrian, London

IMPORTS AT BOSTON.

Week ending Aug. 11, 1888.

ACID CITRIC—20 kgs, Stockholm City London
ALUM—100 bbls, Buffalo, Hull
ALIZARINE ASST—10 cks, Beach & Co, Catalonia, Liverpool
ANILINE OIL—6 dms, Bulgarian, Liverpool
SALT—14 bbls, T Leyland & Co, Bulgarian, Liverpool
ARCHIL—5 cks, Howe, Balch & Tay, S City, London
BLEACH—89 cks. Linder & Meyer, Catalonia, Liverpool
803 cks, order, Bulgarian, Liverpool
83 cks, Wing & Evans, Bulgarian, Liverpool
282 cks, Morey & Co, Bulgarian, Liverpool
34 cks. J L & D S Riker, Bulgarian, Liverpool
91 cks, Linder & Meyer, Bulgarian, Liverpool
83 cks, order. Iowa, Liverpool
CARBON—1 dm, Baldwin Bros & Co, Catalonia, L'pool
CAMWOOD—5 tons, J D Lewis, Bulgarian, L'pool
CEMENT—780 cks, A Young & Co, L City, London
500 cks, Waldo Bros, L City, London
1,100 cks, order, L City, London
CHAMOIS—4 cs, White, Son & Co, Catalonia, L'pool
CLOVES—200 bls, Stockholm City, London
CUDBEAR—4 cks, J D Lewis, Borderer, London
CHINA CLAY—200 cks, C L Andrews, Bulgarian, L'pool
649 cks, order, Bulgarian, L'pool
COLORS—5 cks, 26 kgs, T Leyland & Co, Bulgarian, L'pool
CORKWOOD—55 bls, order, Bulgarian, L'pool
DYESTUFF—10 bxs, Beach & Co, Catalonia, L'pool
DEXTRINE—25 bgs, Buffalo, Hull
100 bgs, S City, London
DYEWOOD EXT—35 cks, T Leyland & Co, Bulgarian, L'pool
GAMBIER—2,851 bls, T R Fay, Sulitelma, Singapore
GLASS—62 pgs, R Sherburne & Co, Bulgarian, Liverpool
PLATE—2 cs, Hill, Turner & Co, Bulgarian, Liverpool
WINDOW—2 pgs, Hills, Turner & Co, Bulgarian, L'pool
GLYCERINE—4 cs, G C Goodwin & Co, S City, London
GOLD THREAD—3 bbls, G S Cheney & Co, Yarmouth, Y'm'th
GUM COPAL—209 bgs, F C Butman, L H Snow, Goree
195 bxs, T R Tay, Sulitelma, Singapore
SUB—22 cks, T Leyland & Co, Bulgarian, Liverpool
GREASE—10 bbls, A J Foster & Co, Catalonia, Liverpool
13 cks, order, Catalonia, Liverpool
57 cks, G H Leonard & Co, S City, London
INDIAN RED—10 cks, Wadsworth, H & Co, Buffalo, Hull
INDIGO—39 cs, A T Turner, S City, London
LIME JUICE—109 cs, E C Rich Co, Catalonia, Liverpool
LOGWOOD—315,350lb, Dupuy, R & Co, Alert, Hayti
348,000lb, Lyon & Co, Alert, Hayti
454,000lb, Atlantic Dyewood Co, J A Horsey, Mirigoane
NUTMEGS—77 bxs, Stockholm City, London
OCHER—25 bbls, G Lundberg, Buffalo, Hull
OIL COD—8 bbls, F L Clements & Co, Yarmouth, Yarmouth
PAINT—45 kgs, Linder & Meyer, Buffalo, Hull
PEPPER—243 bgs, T R Fay, Sulitelma, Singapore
WHITE—104 bgs, T R Fay, Sulitelma, Singapore
SAGO—140 bgs; T R Fay, Sulitelma, Singapore
FLOUR—1,631 bgs, T R Fay, Sulitelma, Singapore
POTASH MURI—1,000 bgs, S City, London
SIZE—29 cks, A A Brigham, S City, London
SODA ASH—800 bgs, Catalonia, Liverpool
40 cks, E & F King & Co, Bulgarian, Liverpool
172 cks, 860 bgs, order, Bulgarian, Liverpool
271 cks, order, Iowa, Liverpool
CAUSTIC—25 dms, Catalonia, Liverpool
150 dms, E & F King & Co, Bulgarian, Liverpool
249 dms, E & F King & Co, Iowa, Liverpool
SAL—125 cks, Bulgarian, Liverpool
140 bbls, Iowa, Liverpool
SUMAC—303 bgs, Bulgarian, Liverpool
TAPIOCA—104 bgs, T R Fay, Sulitelma, Singapore
TUSCAN RED—2 cks, H Woods, Son & Co, Buffalo, Hull
VARNISH—8 cts, Wadsworth, H & Co, S City, London
WHITE LEAD—1 ck, Baldwin Bros & Co, Catalonia, L'pool

IMPORTS AT PHILADELPHIA.

Week ending Aug. 10, 1888.

ARSENIC—200 cks, Senator Iken, Hamburg
BRIMSTONE—250 tons, Kepler, Girgenti
1,000 tons, M Liebman, Kepler, Girgenti
BLEACH—10 cks, Fergusson Bros, Lord Gough, L'pool
CEMENT—3,390 bbls, Senator Iken, Hamburg
CHLORIDE DIOXIDE—23 dms, Lord Gough, Liverpool
CHALK—10 cks, Powers & Weightman, Michigan, London
CINCHONA BARK—276 bls, Powers & W, Michigan, London
GLASS PLATE—3 cs, B H Shoemaker, Ld Gough, Liverpool
WINDOW—85 cs, G F Kimball, Ld Gough, Liverpool
LOGWOOD—581,000lb, Browning Bros, L Lane, St Marc
NAPHTHALINE—31 cks, Aschenbach & W, Michigan, London
NUTMEGS—130 bxs, Michigan, London
NUX VOMICA—39 pgs. McIlvane Bros, Michigan, London
PHOSPHATE ROCK—700 tons. Keystone Chem Co, E R Smith, Grand Constable
PAINT—15 cks, Fair & Bailey, Michigan, London
POTASH—100 kgs, Fair & Bailey, Michigan, London
CHLO—150 kgs, Fergusson Bros, Ld Gough, Liverpool
PEPPER—147 bgs, order, Michigan, London
SODA CAUSTIC—100 bbls, Pa Salt Mfg Co, Lord Gough, L'pool
SAL—280 bbls, order, Lord Gough, Liverpool
374 kgs, Harlan & H, Lord Gough, Liverpool
SUMAC—700 bgs, Phelps Bros, Kepler, Palermo
ZINC OXIDE—100 cks, Michigan, London

IMPORTS AT BALTIMORE.

Week ending Aug. 10, 1888.

BRUSHES—3 cs, J J Thomsen, La Gascogne, Havre
GLASS MIRROR—4 cs, Hermann, Bremen
PLATE—10 cs, Hermann, Bremen
MANURE SALT—1,048 bgs, H Lautz & Co, Hermann, Bremen
SODA ASH—134 cks, Peruvian, Liverpool

IMPORTS AT MILWAUKEE.

GLASS CATHEDRAL, ROLLED—27 cs, 10,009 ft, J E Patton & Co, Lord Gough, Liverpool
ENAMELED—51 cs, J E Patton & Co, Nederland, Antw'p
PLATE—6,485 ft, J E Patton & Co, Lord Gough, L'pool
9,983 ft, J E Patton & Co, Br Princess, Liverpool
5,257 ft, J E Patton & Co, Br Prince, Liverpool
2 cs, J E Patton & Co, Belgenland, Antwerp
2 cs, J E Patton & Co, Nederland, Antwerp
WINDOW—215 cs, J E Patton & Co, Nederland, Antwerp
375 cs, J E Patton & Co, Switzerland, Antwerp

WITHDRAWALS FROM BOND.

Week ending August 11, 1888.

Aniline colors, pgs	182
Antimony cks	50
Bay rum, gls	639
Berry Carmine pkg	1
Bristles, pkgs	79
Chamois cs	1
China clay, tons	105
Corks, bls	20
Dextrine, bgs	60
Dyewood ext, cks	15
Glass Mirror cs	10
Glycerine refined, dms	10
Glue, pgs	31
Lakes, cks	5
Licorice paste, cs	25
Matches, cs	1
Oil codliver, bbls	25
Oil geranium, cs	3
Opium, cs	1
Pomade, cs	8
Perfume, cs	1
Potash caustic, dms	35
Potato flour, bgs	25
Saltpeter, bgs	397
Soap castile, bxs	100
Soda caustic, drs	13
Sponge, bls	96
Sponge, cs	1
Sumac extract, cks	1

TOTAL DOMESTIC RECEIPTS.

FOR WEEK ENDING AUGUST 13, 1888.

		For week.	Since Jan 1.
Alcohol	bbls.	650	16,594
Ashes	pkgs.	72	1,406
Beeswax	pkgs.	54	560
Borax	pkgs.	1,817	32,687
China clay	cks.	261	4,364
Cottonseed	bags.	..	5,593
Meal	bgs.	..	35,339
Cake	bgs.	..	71,984
Soap stock	bbls.	..	1,125
Flaxseed	bush.	..	10,145
Grease	pkgs.	956	26,356
High Wines	bbls.	1,072	35,415
Lead	pigs.	6,015	237,182
Mustard seed	bgs.	..	6,238
Oil, Cottonseed	bbls.	167	63,568
Lard	bbls.	70	3,518
Linseed	bbls.	..	
Lubricating	bbls.	2,475	27,421
Cake	bags.	638	136,107
Oleo stock	pkgs.	385	12,881
Pitch	bbls.	14	2,108
Quicksilver	flks.	..	3,701
Rosin	bbls.	8,591	245,198
Stearine	pkgs.	80	2,470
Sumac	bags.	164	31,126
Tallow	pgs.	1,470	28,956
Tar	bbls.	524	17,688
Turpentine, crude	bbls.	10	902
Spirits	bbls.	2,710	62,006

NEW YORK DOMESTIC RECEIPTS.

For week ending Aug. 13.

ALCOHOL—525 bbls, J A Webb, B & O RR
75 bbls, D T Mills, Penn RR
50 bbls, Boyd & Co, Penn RR
ASHES—19 pgs, order, Balt Inland
53 pgs, Welch, H & C, H R RR
BEESWAX—14 bbls, forward, str, Wilmington
18 bbls, order, str, Wilmington
2 pgs, Smith & N, str, Galveston
2 pg, Belt & B, str, Charleston
1 pg, J K Cilley & Co, str, Charleston
6 pg, order, str, Richmond
1 pgs, Belt & B, str, Brunswick
7 pgs, J K Cilley & Co, str, Richmond
3 pgs, Belt & B, str, Richmond
BONES—11 hhds, Lister Bros, str, N O
BONE DUST—2,247 sks, order, str, San Francisco
BORAX—1,817 sks, order, str, San Francisco
CEMENT COPPER—150 sks, order, str, San Francisco
CLAY—13 cks, Sergeant Bros, str, Port Royal
155 cks, C B Barber, str, Charleston
94 cks, R McNamee & Co, str, Charleston
GREASE—280 pgs, order, N R boats
100 pgs, G Vandenhove, N R boats
159 pgs, order, H R RR
51 pgs, order, Penn RR
23 pgs, DeLong & W, Penn RR
20 pgs, Welch, H & C, Penn RR
30 pgs, order, N Y O & W RR
22 pgs, J Cinnamon, Balt In
62 pgs, H W Calef, D L & W RR
35 pgs, A W Harris, Balt In
32 pgs, Smith & M, Penn RR
6 pgs, A L Knight, D L & W RR
71 pgs, T M Potter, Penn RR
65 pgs, Fayerweather & L, str, Richmond
HIGHWINES—225 bbls, G W Kidd & Co, D L & W RR
130 bbls, Ross & K, Penn RR
300 bbls, J Griffith & Co, Penn RR
132 bbls, J L Hasbrouck, D L & W RR
195 bbls, T B Kerr & Co, Penn RR
LEAD—3,170 pigs, order, str, S F
2,845 pigs, order, H R RR
OIL COTTONSEED—97 bbls, order, N R boats
70 bbls, order, str, N O
LARD—45 bbls, Armour & Co, H R RR
25 bbls, Fairbank & Co, H R RR
LUB—180 bbls, order, C RR of N J
1,700 bbls, order, H R RR
60 bbls, Vacuum Oil Co, Erie RR
515 bbls, order, N R boats
20 bbls, order, Penn RR
WHALE—39 pipes, 400 bbls, order, str, S F
CAKE—130 pgs, order. H R RR
400 pgs, Simmonds & G, D L & W RR
108 pgs, S H Weeks, Erie RR
OLEO STOCK—60 pgs, order, N Y W S & B RR
325 pgs, H Loeb, D L & W RR
PHOSPHATE ROCK—2,000 bgs, A S Malcomson, str, Port Royal
PITCH—2 bbls, order, str, S F
12 bbls, order, str, Wilmington
ROSIN—94 bbls, Fenner & Co, str, Wilmington
35 bbls, order, str, Fernandina
140 bbls, G Potter & Co, str, Fernandina
1,500 bbls, Paterson, D & Co, str, Brunswick
500 bbls, G Weasel, str, Brunswick
50 bbls, forward, str, Charleston
53 bbls, J Turton's Sons, str. Charleston
365 bbls, Paterson, D & Co, str, Savannah
745 bbls, J Turton's Sons, str, Savannah
1,217 bbls, F W Blossom, str, Savannah
378 bbls, Murchison & Co, str, Savannah
100 bbls, G W Bailey & Co, str, Savannah
813 bbls, Tolar & H, str, Savannah
402 bbls, forward, str, Savannah
438 bbls, G W Bailey & Co, str, Richmond
240 bbls, Dutton & W, str, Savannah
1,006 bbls, M W Larendon, str, Savannah
214 bbls, G W Bailey & Co, str, Wilmington
100 bbls, Z Mills, str, Wilmington
7 bbls, order, str, Savannah
27 bbls, Tolar & H, str, Richmond
47 bbls, Hueston & Co, str, Richmond
100 bbls, Fenner & Co, str, Richmond
STARCH—290 bxs, order, H R RR
STEARINE—63 pgs, J Cinnamon, D, L & W RR
16 pgs, W J Wilcox Co, N R boats
1 pkg, order, N R boats
SUMAC—164 bgs, N Y D E & C Co, str, R'mond
TALLOW—23 pgs, G Vandenhove, N R boats
316 pgs, order, N R boats
50 pgs, E Winter, Penn RR
18 pgs, G B Ferris & Co, Penn RR
125 pgs, H W Calef, Penn RR
115 pgs, H W Calef, B & O RR
14 pgs, Welch, H & C, L V RR
10 pgs, order, C RR of N J
20 pgs, order, Erie RR
48 pgs, Welch, H & C, C RR of N J
60 pgs, Welch, H & C Penn RR
6 pgs, order, D, L & W RR
68 pgs, Colgate & Co, D, L & W RR
80 pgs, H W Calef, C RR of N J
7 pgs, De Long & Bro, C RR of N J
46 pgs, order, H R RR
24 pgs, order, Penn RR
10 pgs, Austin, N & Co, Penn RR
32 pgs, P H Van Wagener, C RR of N J

20 pgs, G B Ferris & Co, C RR of N J
9 pgs, order, L V RR
50 pgs, H W Calef, str, Richmond
78 pgs, H W Calef, N R boats
30 pgs, G Vandenhove, Penn RR
15 pgs, J Hecht, D, L & W RR
12 pgs, B T Babbitt, N Y, O & W RR
80 pgs, G Vandenhove, N Y, W S & B RR
20 pgs, Hopkins, R & Co, D, L & W RR
7 pgs, D B Brown, L V RR
50 pgs, order, str, Richmond
10 pgs, B T Babbitt, Penn RR
16 pgs, order, Vt C RR
3 pgs, C S Higgins, C RR of N J
50 pgs, Kuh & T, C RR of N J
TAR—25 bbls, Murchison & Co, str, Wilmington
100 bbls, R F Seaman & Co, str, Wilmington
100 bbls, J A Casey, str, Wilmington
250 bbls, F W Blossom, str, Wilmington
49 bbls, Z Mills, str, Richmond
TURP SP—10 bbls, Fenner & Co, str, Wil'ton
109 bbls, Tolar & H, str, Wilmington
110 bbls, forward, str, Wilmington
120 bbls, order, str, Wilmington
271 bbls, Tolar & H, str, Richmond
162 bbls, G W Bailey & Co, str, Richmond
16 bbls, order, str, Fernandina
27 bbls, G Potter & Co, str. Fernandina
30 bbls, forward, str, Charleston
17 bbls, Z Mills, str, Charleston
100 bbls, Murphy & Co, str, Savannah
10 bbls, forward, str, Savannah
140 bbls, Paterson, D & Co, str, Savannah
500 bbls, Pratt & Co, str, Savannah
120 bbls, Dutton & W, str, Savannah
150 bbls, Paterson, D & Co, str, Wilmington
15 bbls, G Potter & Co, str, Wilmington
244 bbls, G Potter & Co, str, Brunswick
400 bbls, Paterson, D & Co, str, Brunswick
150 bbls, Paterson, D & Co, str, Charleston
3 bbls, T M Robinson & Co, str, Richmond
6 bbls, Hueston & Co, str, Richmond
CRUDE—10 bbls, forward, str, Wilmington

NEW ORLEANS DOMESTIC RECEIPTS.

For week ending Aug. 9.

ACID—200 cbys, Cincinnati
ALCOHOL—145 bbls, Ill C RR
CEMENT—1 car, L, N O & T RR
400 bbls, Cincinnati
COTTONSEED—246 sks, Washington
2,621 sks, Vicksburg
2,136 sks, Shreveport
MEAL—5 cars, L, N O & T RR
1 car, L & N RR
1,031 sks, T & P RR
GLUCOSE—2 cars, L, N O & T RR
1 car, L & N RR
NAPHTHA—3 tnks, L, N O & T RR
OIL—69 bbls, Ill C RR
35 bbls, Cincinnati
1 tnk, S P RR
1 car, L & N RR
10 bbls, St Louis
CAKE—1 car, L N O & T RR
PETROLEUM—5 cars, L, N O & T RR
PITCH—5 bbls, St Louis
ROSIN—36 bbls, Springfield
850 bbls, Mobile
100 bbls, Tchefuncta River
7 cars, N O & N E RR
SODA ASH—10 bbls, St Louis
STARCH—1 car, 1,500 bxs, L, N O & T RR
50 bxs, 335 bbls, Cincinnati
TAR—30 bbls, Tchefuncta River
TURPENTINE—3 bbls, Springfield
24 bbls, Tchefuncta River
1 car, N O & N E RR
WHITE LEAD—1,160 kgs, St Louis

WILMINGTON DOMESTIC RECEIPTS

For week ending Aug. 11

ROSIN—417 bbls, Inland
TAR—1,375 bbls, Inland
TURPENTINE SPIRITS—2,233 cks, Inland
CRUDE—709 bbls, Inland

CHARLESTON DOMESTIC RECEIPTS

For week ending Aug. 10

CLAY—200 cks, S C RR
ROSIN—716 bbls, N E RR
524 bbls, C & S RR
812 bbls, S C RR
TURPENTINE SPIRITS—331 cks, N E RR
68 cks, C & S RR
421 cks, S C RR

BOSTON DOMESTIC RECEIPTS

For week ending Aug.11 .

COTTONSEED MEAL—550 bush, F RR
GREASE—76 bbls, B & P RR
85 bbls, Old Colony RR
25 bbls, 5 hhds, B & M RR
106 bbls, B & A RR
48 bbls, N Y & N E RR
57 cks, by sea
2 bbls, F RR
TALLOW—151 bbls, 3 pgs, 8 cks, Old Colony RR
100 tcs, 53 bbls, B & A RR
22 pgs, 5 hhds, 77 bbls, 6 cks, B & M RR
3 bbls, 8 hhds, by sea
22 bbls, F RR
72 bbls, N Y & N E RR

EXPORTS FROM NEW YORK FOR THE WEEK ENDING AUG. 18.

ACID
200 cbys $683 Mendoza, Havana
27 cbys $98 Cienfuegos, St Jago, etc
1 cby $3 Sandringham, Porto Rico
10 cbys $90 Santiago, Mexico
4 cbys $75 Colorado, Aspinwall

ACID NITRIC
10 cbys $100 Santiago, Mexico

ACID SULPHURIC
12 cbys $36 Trinidad, Hamilton
100 cbys $319 Cienfuegos, St Jago, etc
2 cbys $7 Marie, St Martins

ALCOHOL WOOD
2,089 gls $1,593 Furnessia, Glasgow

AMMONIA ANHYDROUS
4 dms $285 L Monarch, London

ASPHALTUM
6,029 lb $80 Reporter, St John, N B
6,250 lb $310 Rugia, Hamburg

BAY RUM
350 gls $280 Sandringham, Porto Rico

BUTTER COLOR
6 bxs Miranda, St John's

BENZINE
95 gls, $16 Gladiateur, Rosario

BONES
207 bgs $200 Colorado, London
315 bgs $900 LaGascogne, Havre
36 bgs $— Greece, London

BRIMSTONE
30 bbls $182 Burnley, Br West Indies

CANARY SEED
1,500 lb $50 Reporter, St John, N B

CANDLES
430 bxs $650 Manson, Mayaguez
16 bxs $62 Trinidad, Hamilton
1,045 bxs $1,824 Sandringham, Porto Rico
10 bxs $125 Burnley, Barbadoes
2 bxs $4 Burnley, St Kitts
5 bxs $10 Burnley, Montserrat
26 bxs $81 Alexandria, Leghorn
8 cs $80 Atlas, Hayti
100 bxs $237 Thos Brooks, Santiago
20 bxs $18 Muriel, Domenica
6 bxs $10 Muriel, St Martins
31 bxs $29 Muriel, St Lucia
94 bxs $538 Colorado, Colon
10 bxs $48 Valencia, Venezuela

CARBON
50 bbls $300 Westernland, Antwerp

CASSIA
10 bls 35 Manson, Mayaguez
10 bls $30 Sandringham, Porto Rino

CEMENT
2 bbls $6 Atlas, Hayti
100 bbls $225 C of Atlanta, Sagua
20 bbls $25 Santiago, Mexico

CHALK
6 bbls $7 Sandringham, Porto Rico

COPPER PAINT
100 gls $150 Geiser, Copenhagen
150 gls $210 Celtic, Liverpool
50 gls $47 Reporter, St John, N B
12 gls $16 Marie, St Martins

DYESTUFF
11,200 lb $812 Furnessia, Glasgow
5,600 lb $462 Greece, London

DYEWOOD EXTRACT
2,990 lb $100 Colorado, Hull
36,180 lb $2,900 Rugia, Hamburg
11,593 lb $914 Alexandria, Genoa
15,000 lb $882 Rotterdam, R'dam
6,000 lb $575 Alaska, Liverpool
8,262 lb $519 Westernland, Antwerp

FERTILIZER
27 bbls $154 Cienfuegos, Nassau

FISH GLUE
313 lb $32 Rugia, Hamburg

FUSTIC EXT
13,314 lb $1,265 Rugia, Hamburg

GASOLENE
250 gls $79 Sandringham, Porto Rico

GLASS PLATE
1 cs $26 Manhattan, Havana

GLASS WINDOW
5 bxs $340 C of Alexandria, Mexico

GLUE
427 lb $82 J E Graham, Melbourne
194 lb $26 Cienfuegos, St Jago, &c
376 lb $53 Mexico, Havana
193 lb $39 Santiago, Havana

GLYCERINE
200 lb $40 Portia, St John's

GREASE
6,749 lb $150 Santiago, Mexico
7,976 lb $159 Santiago, Havana
1,403 lb $200 Rotterdam, R'dam
29,000 lb $1,060 Werra, Bremen
12,123 lb $510 Reporter, St John, N B
941 lb $28 Thos Brooks, Guantanamo
13,142 lb $264 Manhattan, Havana
27,756 lb $1,017 Santiago, Mexico
15,253 lb $305 C of Atlanta, Havana
6,144 lb in our last should be 11,144 lb, value unchanged

GUM DAMAR
1,068 lb $193 Santiago, Havana

HEMLOCK EXTRAT
24,655 lb $620 B City, Bristol

ISINGLASS
4 bbls $125 Rugia, Hamburg

LAMPBLACK
1 bbl $2 Atlas, Hayti

LACQUER
102 gls $86 Portia, St John's
106 gls $340 C of Rome, Liverpool

LOGWOOD
48 tons $1,970 C of Chicago, Liverpool

LUBRICATING GREASE
225 lb $10 J E Graham, Melbourne
1,050 lb $26 Mexico, Havana

MATCHES
4 cs $96 Trinidad, Hamilton
2 cs $29 Burnley, Montserrat
4 cs $38 Newport, Colon
1 cs $14 Muriel, Domenica
30 cs $72 Gelert, Cayenne
10 cs $100 Pearl, St Croix
3 cs $38 Marie, St Martins
1 cs $27 Muriel, St Lucia

OIL CAKE
225,626 lb $2,708 Colorado, Hull
226,712 lb $2,720 Van Dyck, Liverpool
224,601 lb $3,000 Colorado, London
109,686 lb $1,354 Altonower, Newcastle
484,650 lb $5,600 Westernland, Antwerp
120,282 lb $1,454 Furnessia, Glasgow
222,291 lb $3,026 Greece, London

OIL CASTOR
140 gls $116 Sandringham, Porto Rico

OIL COCOA
5,841 lb $322 Muriel, Br West Indies

OIL COD
500 gls $160 J E Graham, Melbourne

OIL CODLIVER
20 cs $137 Crown Prince, Progreso
8 cs $360 Santiago, Mexico
96 cs $1,044 Mariannina, Montevideo
24 cs $504 Santiago, Havana

OIL CRUDE
In our last should be Oil Cottonseed, Crude

OIL COTTONSEED
4,800 gls $2,300 Rugia, Hamburg
5,400 gls $2,500 P Caland, Amsterdam
1,200 gls $630 Mariannina, Montevideo
2,000 gls $1,300 Lahn, Buenos Ayres
7,600 gls $3,700 Westernland, Antwerp
20 gls $12 Muriel, Domenica
1,357 gls $604 Santiago, Mexico
536 gls $260 Muriel, Barbadoes
152 gls $78 Muriel, St Lucia
106 gls $51 Muriel, Pt Castries

OIL COTTONSEED, CRUDE
1,250 gls $475 Santiago, Mexico

OIL ESSENTIAL
1 cs $59 Portia, Halifax
1 cs $221 Rugia, Hamburg

OIL LARD
1,440 gls $965 J E Graham, Melbourne
2,500 gls $1,665 Ethiopia, Glasgow
505 gls $325 La Normandie, Havre
2,550 gls $1,524 Westernland, Antwerp
10 gls $10 C of Rome, Liverpool
1,626 gls $1,223 Santiago, Mexico
1,750 gls $1,100 Greece, London

OIL LINSEED
200 gls $125 Crown Prince, Progreso
10 gls $6 Trinidad, Hamilton
67 gls $39 Cienfuegos, Nassau
50 gls $31 Sandringham, Porto Rico
115 gls $103 Santiago, Havana
46 gls $25 Burnley, St Kitts
201 gls $142 Atlas, Hayti
10 gls $6 Newport, Colon
21 gls $12 Marie, St Martin's
103 gls $58 Muriel, St Croix
49 gls $32 Muriel, St Lucia
50 gls $20 Santiago, Mexico

OIL LUBRICATING
8,773 gls $1,596 J E Graham, Melbourne
5 gls $6 Trinidad, Hamilton
1,485 gls $300 S of Pa, Glasgow
2,400 gls $1.800 Italy, Liverpool
1,790 gls $1,000 C Margaux, Bordeaux
42,616 gls $5,847 Colorado, London
2,987 gls $500 Alexandria, Genoa
8,550 gls $2,625 La Gascogne, Havre
1,354 gls $744 C of Atlanta, Havana
1,593 gls $300 P Caland, A'dam
1,000 gls $370 Mariannina, Montevideo
1,020 gls $450 Rotterdam, R'dam
17,000 gls $3,380 Altonower, Newcastle
582 gls $48 Reporter, St John N B
55,741 gls $10,875 Alaska, L'pool
100 gls $45 T Brooks, Guantanamo
22,880 gls $3,089 J Breydel, Antwerp
23,319 gls $2,919 Westernland, Antwerp
500 gls $179 Santiago, Mexico
2,080 gls $312 N Brett, Buenos Ayres
36,500 gls $6,829 Rugia, Hamburg
149 gls $65 Muriel, St Croix
72 gls $29 C of Atlanta, Sagua
36,610 gls $16,765 C of Chicago, L'pool
2,845 gls $1,980 Furnessia, Glasgow

OIL MEAL
7,240 lb $120 Burnley, Br West Indies
31,250 lb $425 Burnley, Barbadoes
1,500 lb $240 Burnley, St Kitts
3,125 lb $44 Burnley, Antigua
625 lb $9 Burnley, Montserrat
31,250 lb $500 Monsita, Bridgetown
15,000 lb $240 Muriel, Antigua
28,000 lb $363 Muriel, Br West Indies
2,250 lb $36 Muriel, St Lucia
6,000 lb $96 Muriel, St Croix

OIL OLEO
24,000 lb $2,400 California, Hamburg
85,548 lb $7,643 Rugia, Hamburg
243,356 lb $27,116 P Caland, Amsterdam
20,626 lb $1,700 Rugia, Hamburg

OIL PINE
200 gls $37 Reporter, St John N B

OIL PEPPERMINT
15 cs $1,008 C of Chicago, L'pool
350 lb $750 Greece, London

OIL ROPE
466 gls $46 Reporter, St John N B

OIL SASSAFRAS
20 lb $10 Portia, Halifax

OIL SPRUCE
72 lb $21 Portia, Halifax

OIL TALLOW
504 gls $227 Santiago, Mexico

OIL WINTERGREEN
48 lb $98 Greece, London

PARAFFINE WAX
115,684 lb $8,500 S of Pa, Glasgow
27,311 lb $1,190 Colorado, Hull
361,650 lb $28,800 Colorado, London
25,248 lb $1,200 Rugia, Hamburg
194 lb $24 Colorado, Colon
40,083 lb $1,600 Rugia, Hamburg
294,939 lb $25,000 Greece, London

PEPPER
20 bgs $310 Manson, Mayaguez
1 bg $22 Cienfuegos, St Jago, etc
20 bgs $350 Sandringham, Porto Rico
3 bgs $49 Reporter, St John, N B
4 bgs $85 Santiago, Mexico
1 bg $10 Marie, St Martins

PETROLEUM JELLY
1 cs $12 J E Graham, Melbourne
1 cs $12 Trinidad, Hamilton

PIMENTO
20 bgs, $176 Sandringham, Porto Rico

PITCH
2 bbls $3 Sandringham, Porto Rico
40 kgs $34 Gladiateur, Rosario
13 bbls $19 Reporter, St John, N B
2 bbls $3 Marie, St Martins
2 bbls $3 Muriel, Barbadoes

POTASH
10 cks $350 La Gascogne, Havre
100 bxs $150 Portia, Halifax
70 bxs $150 Reporter, St John, N B

QUERCITRON BARK
1,000 bgs $1,500 La Gascogne, Hrvre

ROSIN
332 bbls $1,153 J E Graham, Melbourne
31 bbls $61 Cienguegos, St Jago, etc
2,094 bbls $4,715 Van Dyck, Liverpool
715 bbls $1,210 California, Hamburg
1 bbl $3 Burnley, St Kitts
1 bbl $5 Atlas, Hayti
200 bbls $275 Gaerwin, Bahia
653 bbls $1,801 Mariannina, Montevideo
25 bbls $117 Mexico, Havana
30 bbls $57 Colorado, Colon
105 bbls $535 Altonower, Newcastle
11 bbls $27 Santiago, Mexico
271 bbls $1,022 Rugia, Hamburg
40 bbls $93 Muriel, Port Spain
210 bbls $425 Furnessia, Glasgow
350 bbls $747 Greece, London
5 bbls $22 Valencia, Venezuela

SOAP
110 bxs $131 Miranda, St John's
110 bxs $275 J E Graham, Melbourne
75 bxs $376 Trinidad, Hamilton
100 bxs $50 Cienfuegos, St Jago, &c
2 bxs $7 Cienfuegos, Nassau
50 bxs $105 Burnley, Barbadoes
65 bxs $143 Burnley, Grenada
1 bx $5 Burnley, Georgetown
50 bxs $98 Burnley, Antigua
7,350 bxs $4,452 Atlas, Hayti
2 bxs $22 C of Atlanta, Havana
1 bx $21 Mexico, Havana
403 bxs $655 Newport, Colon
500 bxs $250 Andes, Hayti
1 cs $15 Lahn, Bremen
79 bxs $149 Portia, St John's
25 bxs $12 T Brooks, Guantanamo
2 bxs $10 Santiago, Havana
1 bx $4 Santiago, Mexico
1 bx $3 Muriel, Barbadoes
1 bx $3 Muriel, Port Spain
8 cs $800 Greece, London
20 bxs $40 Greece, London
4 bxs $6 Van Dyck, Buenos Ayres
44 bxs $993 A Reed, Sydney

SODA CAUSTIC
53 dms $731 Santiago, Mexico
5 dms $69 Muriel, Pt Spain

SODA SILICATE
10 bbls $72 Reporter, St John, N B

SODA STANNATE
4,105 lb $300 Furnessia, Glasgow

SPERMACETI
3,173 lb $1,050 Rugia, Hamburg

SPONGE
44 bls $450 La Gascogne, Havre
4,269 lbs, $2,560 Etruria, Liverpool
785 lb $390 Santiago, Mexico
3,084 lb $1,300 Rugia, Hamburg

STARCH
23 pgs $59 Trinidad, Hamilton
10 bxs $13 Cienfuegos, St Jago, &c
30 bxs, $50 Sandringham, Porto Rico
600 bxs $1,247 Greece, London
85 pgs $222 Pearl, St Croix
4 pgs $12 Rugia, Valparaiso
5 bbls $26 Muriel, St Croix

STEARINE
20,300 lb $1,218 P Caland, Amsterdam
13,440 lb $550 Rotterdam, Rotterdam

SUMAC
8,000 lb $200 Alaska, Liverpool

SUMAC EXTRACT
4,992 lb $175 Furnessia, Glasgow

TALLOW
17,324 lb $878 Miranda, St John's
6,120 lb $175 Santiago, Mexico
68,970 lb $2,679 C Margaux, Bordeaux
128,726 lb $5,141 Colorado, Hull
750 lb $51 Burnley, Barbadoes
11,650 lb $525 La Gascogne, Havre
393,000 lb $15,720 P Caland, Amsterdam
17,726 lb $1,009 Portia, St John's
136,962 lb $7,035 Santiago, Mexico
58,365 lb $3,035 Rugia, Hamburg

12,082lb $604 Muriel, Br West Indies

TALLOW SARAPS

24,161lb $317 L Monarch, London

TAR

20 cs $34 Crown Prince, Progreso
15 cs $63 Cienfuegos, St Jago, &c
16 bbls $48 Sandringham, Porto Rico
1 bbl $2 Burnley, St Kitts
5 cs $8 Mexico, Havana
3 bbls $8 Reporter, St John N B
2 bbls $18 Santiago, Mexico
1 cs $4 Trinidad, Br West Indies

TURPENTINE

200 gls $90 Crown Prince, Progreso
2 gls $1 Trinidad, Hamilton
5,760 gls $2,298 J E Graham, Melbourne
60 gls $28 Cienfuegos, Nassau
317 gls $114 Cienfuegos, St Jago, etc
50 gls $20 Sandringham, Porto Rico
5 gls $3 Muriel, St Kitts
94 gls $35 Santiago, Havana
50 gls $21 Burnley, Barbadoes
105 gls $39 Burnley, Pt Spain
238 gls $104 Atlas, Hayti
500 gls $250 Gladiateur, Rosario
80 gls $33 C of Atlanta, Sagua
295 gls $115 Mexico, Havana
2,200 gls $960 Mariannina, Montevideo
503 gls $204 Portia, Halifax
1,023 gls $380 Reporter, St John N B
405 gls $158 Manhattan, Havana
339 gls $133 Santiago, Havana
20 gls $8 Marie, St Martins
10 gls $5 Muriel, Barbadoes
38 gls $22 Colorado, Colon
10,360 gls in our last per A Reed should be 10,560 gls; value unchanged.

VARNISH

200 gls $175 Crown Prince, Progreso
10 gls $25 Trinidad, Hamilton
825 gls $1,450 J E Graham, Melbourne
235 gls $219 Cienfuegos, St Jago, etc
50 gls $46 Sandringham, Porto Rico
15 gls $14 Burnley, Barbadoes
2 gls $4 Atlas, Hayti
20 gls $9 C of Atlanta, Sagua
170 gls $815 P Caland, Amsterdam
150 gls $163 Mariannina, Montevideo
21 gls $40 Portia, St John's
57 gls $45 Santiago, Havana
10 gls $13 Muriel, St Pierre
159 gls in our last per Colorado should be 173 gls; value unchanged.

WHITE LEAD

300lb $18 Muriel, St Croix

WHITING

5 bbls $11 Cienfuegos, St Jago, etc
11 bbls $20 Sandringham, Porto Rico
6 bbls $12 Santiago, Havana
10 bbls $18 Valencia, Venezuela

San Francisco Exports.

For week ending Aug. 1.

BONEBLACK

1,235,500 lb, Deutschland, Bremen

CANDLES

140 bxs, Umatilla, In transit
225 bxs, Newbern, Mexico

CEMENT

25 bbls, Newbern, Mexico

FERTILIZER

2,230 sks, Deutschland, Bremen
143,795 lb, S G Wilder, Honolulu

GINSENG

6,019 lb, Belgic, China

OIL COCA

515 gls Umatilla, Victoria
923 gls Newbern, Mexico

OIL NUT

90 bxs Zealandia, Honolulu

OIL WHALE

6,132 gls Zealandia, Australia
560 gls Zealandia, New Zealand

PAINT

14 pgs Umatilla, Victoria
22 pgs Newbern, Mexico
23 pgs Zealandia, New Zealand

QUICKSILVER

144 fl Newbern, Mexico
10 fl Zealandia, New Zealand

SAGO

1,490lb Newbern, Mexico

SOAP

62 bxs S G Wilder, Honolulu
40 bxs Newbern, Mexico
115 bxs Zealandia, Honolulu
92 bxs Zealandia, Australia
38 bxs Zealandia, New Zealand
27 bxs Belgic, Japan

SODA

3,553lb Umatilla, Victoria

SPICES

9 pgs Newbern, Mexico

STARCH

5,369lb Newbern, Mexico

TALLOW

19,716lb Newbern, Mexico

WHITE LEAD

230lb Newbern, Mexico

New York to San Francisco.

Per str Newport, cleared Aug. 10, via Isthmus of Panama.

Hempseed—5 bgs $28
Licorice—4 bls $24
Lubricating grease—100 cs $315
Pimento—9 bgs $215
Potash—10 kgs $64
Plumbago—10 bbls $429
Soap—26 bxs $92
Varnish—240 gls $360

Philadelphia Exports.

For week ending Aug. 11

EXTRACT

25 bbls, British Princess, L'pool

OIL LUBRICATING

1,000 bbls, British Princess, L'pool

OIL CAKE

1,948 bgs, Michigan, London

TALLOW

72 hhds, British Princess, L'pool

WAX

800 bbls, British Princess, L'pool

Boston Exports.

For week ending Aug. 11.

ALCOHOL

70 bbls, Marguerite, St Pierre

BONES

350 sks, Norseman, L'pool

CEMENT

20 bbls, Rocky Glen, St Thomas

COTTONSEED MEAL

10 bgs, Iona, Sackville

CUTCH

10 bxs, Carroll, Halifax, etc

DYESTUFFS

25 bxs, Norseman, L'pool

DYEWOOD

36 bgs, Yarmouth, Yarmouth
55 pgs, Carroll, Halifax, etc

GLASS WINDOW

17 cs, Yarmouth, Yarmouth

GREASE

25 hhds, Norseman, L'pool

GREASE LUBRICATING

100 kgs, Elieser, Port Elizabeth

LOGWOOD

20 bxs, Jennie Cushman, Cape Verde

OIL LINSEED

25 cs, Jennie Cushman, Cape Verde

OIL LUB

10 bbls, Carroll, Halifax, etc

OIL VITRIOL

20 cbys, Galatea, St John

OIL CAKE

90 sks, Cephalonia, L'pool

PAINT

12 bxs, Jennie Cushman, Cape Verde

SOAP

15 bxs, Jennie Cushman, Cape Verde
200 bxs, S P Oliver, Gonaives

STARCH

15 bxs, Yarmouth, Yarmouth
20 bxs, Jennie Cushman, Cape Verde
20 bxs, Kennard, Flores & A M

TALLOW

25 hhds, Norseman, L'pool

TURPENTINE

25 cs, Elieser, Port Elizabeth

VARNISH

20 cs. Elieser, Port Elizabeth

New Orleans Exports.

For week ending August 10.

COTTONSEED MEAL

2,400 sks, Ocean King, Bremen

OIL CAKE

2,800 sks, Australian, Liverpool
2,500 sks, Ocean King, Bremen

SOAP

210 bxs, Gussie, Bluefields

Charleston Exports.

For week ending August 9.

ROSIN

1,000 bbls, Anna. Rotterdam

TURPENTINE

1,600 cks, Anna, Rotterdam

GOODS ON THE WAY TO THE UNITED STATES BY SAIL.

Calcutta

TO NEW YORK.

Farragut, 1,477 bgs cutch, 100 cs shellac, 353 cs indigo, 200 cs buttonlac, 100 cs castor oil, 3,000 pkts turmeric, 46 bgs nux vomica
Falls of Halladale, 8,137 bgs linseed
George Skolfield, 4,350 bgs and 435 bxs cutch 100 cs shellac, 52 cs indigo, 300 cs castor oil.
Sam Skolfield, 4,251 bgs cutch, 6,488 bgs linseed, 125 cs indigo, 100 cs buttonlac
Paramita, 3,799 bgs cutch, 3,968 bgs linseed, 50 cs buttonlac
Conqueror, 2,785 bgs saltpeter
L J Morse, 6,262 bgs cutch, 5,399 bgs linseed, 61 cs indigo, 100 cs castor oil, 1,000 bgs ginger.
San Joaquin, 5,998 bgs cutch, 3,458 bgs linseed, 61 cs indigo, 50 cs buttonlac, 500 cs castor oil, 200 kgs myrabolans
Charles Dennis, 552 bgs saltpeter, 1,063 bgs cutch, 20 cs indigo
Vigilant, 1,124 bgs saltpeter, 1,010 bxs cutch 6,195 bgs cutch, 5,000 bgs linseed, 100 cs shellac, 200 cs castor oil

Calle

TO NEW YORK.

Lucy A Nickels, 9,008 cwts cocoanut oil, 4,392 cwts plumbago, 374,312 ozs citronella oil, 27,216 ozs cinnamon oil,

Cirgenti

TO BALTIMORE

Ziffiro, 740 tons brimstone thirds

Leghorn

TO NEW YORK

Alfredo, 250 bxs white soap.

Licata

TO CHARLESTON

S Luigi, 700 tons seconds brimstone

Penang

TO NEW YORK

P J Carleton, 250 pls nutmegs and mace

Singapore

TO NEW YORK

P J Carleton, 8,402 pls gambier, 168 pls tapioca flour, 1,258 pls flake tapioca, 1,780 pls gum copal, 168 pls white pepper, 722 pls black pepper, 99 pls patchouli
Southern Cross, 5,054 pls gambier, 2,259 pls black pepper, 589 pls white pepper, 1,775 pls flake tapioca, 417 pls tapioca flour, 1,640 pls sago flour, 336 pls cube gambier, 1,879 pls gum copal, 65 pls nutmegs, 213 pgs gum copal transhipped
Emilie L Boyd, 9,287 pls gambier, 5,467 pls black pepper, 1,701 pls sago flour, 841 pls pearl tapioca, 1,689 pls flake tapioca, 431 pls cube gambier, 60 pls gum damar, 1,211 pls gum copal, 17 pls cassia transhipped
Wilhelm Anton, 11,722 pls gambier, 2,944 pls black pepper, 1,930 pls sago flour, 256 pls flake tapioca, 449 pls pearl tapioca, 117 pls gum copal, 57 pls gum damar, 288 cs gum copal transhipped

West Coast South America.

TO NEW YORK

Edward Kidder, 10,000 bgs nitrate soda
Alice Reed 8,000 bgs nitrate soda
Angelsea, 10,000 bgs nitrate soda
John Bayley, 7,000 bgs nitrate soda
John Gill, 12,000 bgs nitrate soda
Madura, 9,000 bgs nitrate soda
S P Hitchcock, 23,000 bgs nitrate soda

TO BOSTON

J G Pendleton, 7,000 bgs nitrate soda
Independence, 8,000 bgs nitrate soda

TO CHARLESTON

Serena, 6,000 bgs nitrate soda

TO HAMPTON ROADS

Carrie Winslow, 10,000 bgs nitrate soda
Charles G Rice, 8,000 bgs nitrate soda
Osberga, 13,000 bgs nitrate soda
St Marks, 20,000 bgs nitrate soda

TO PHILADELPHIA

Chesebrough, 15,000 bgs nitrate soda

RECORD OF VESSELS.

PORT & NAME.	SAILED.	LAST REPORTED.
Calcutta.		
Farragut	Jan 20	Missing
Falls of Hall'e.	Mch 15	
G Skolfield	Mch 19	
S Skolfield	March 29	Spoken May 5
Paramita	April 9	
Conqueror	April 23.	
L J Morse	May 1	
San Joaquin	May 9	
C Dennis	June 6	
Vigilant	June 22	
Galle.		
L A Nickels	May 12	
Girgenti.		
Zeffiro	May 30	
Leghorn.		
Alfredo	May 28	
Singapore.		
P J Carleton	April 17.	New Anjer, May 18
S Cross	May 5	New Anjer, May 20
E L Boyd	May 31	
W Anton	June 15	
W. C. South America.		
J G Pendleton	May 14	
E Kidder	May 23	
Alice Reed	May 22	
C Winslow	June 26	
Independence	June 16	
Angelsea	June 14	
Serena	July	
C G Rice	July	
J Bayley	July	
John Gill		Loading, Aug sailing
Osburga		Loading, Aug sailing
Madura		Loading, Aug sailing
S P Hitchcock		Loading, Sept sailing
Chesebrough		Loading, Sept sailing
St Marks		Loading, Sept sailing

TOTAL PACKAGES AND VALUES OF NEW YORK IMPORTS,

As returned by the Custom House for the week ending Aug. 10, 1888:

	Pkgs.	Val.
Glass, plate	109	$8,258
Glass, window	11,898	12,868
Looking glass plate	331	63,779
Arsenic	45	1,034
Acid, benzoic	2	207
Acid, carbolic	35	821
Acid, citric	91	1,915
Acid, salicylic	20	2,976
Acids, all other	30	2,660
Aniline colors	436	27,206
Aniline salt	114	4,947
Ammonia, sal	10	389
Argols	1,788	68,807
Alum	400	956
Albumen	26	1,077
Alizarine	71	4,598
Balsam copaiba	8	240
Bark	8	402
Bleaching powder	163	2,635
Bronze powder	....	15,285
Buchu leaves	12	443
Chalk	....	378
Calomel	2	150
Cantharides	6	150
Chemical salts	73	609
Chicory	33	914
Cinchonidia	8	32
Coca leaves	22	469
Cobalt	5	2,088
Dextrine	620	4,184
Dyewood extract	43	1,808
Fish sounds	7	552
Flowers, chamomile	5	114
Flowers, other	24	567
Gelatine	77	3,799
Glucose	28	773
Glycerine	24	862
Gum arabic	23	700
Gum asphaltum	220	1,380
Gum, aloes	126	485
Gum chicle	11	304
Gum copal	2	17
Gum damar	349	5,031
Gum licorice	100	5,219
Gum olibanum	10	200
Gum, shellac	1,260	30,896
Gum tragacanth	21	1,052
Gum, other	34	2,051
Glue	44	2,883
Insect powder	1	11
Indigo	1	80
Indigo, carmine	5	122
Indigo, extract of	5	193
Laurel leaves	37	486
Leeches	9	148
Manganese	42	991
Madder	6	337
Magnesia	50	315
Manuring salt	....	13,225
Nux vomica	11	30
Archil liquor	47	3,185
Oxide of zinc	100	1,052
Oil, aniline	38	7,216
Oil, cod	75	911
Oil, geranium	2	495
Oil, Haarlem	25	100
Oil, linseed	10	144
Oil, lavender	1	12
Oil, lemon	10	1,009
Oil, neroli	2	1,636
Oil, olive	504	4,796
Oil, rose	4	5,971
Oil, tanners'	21	336
Oil, other essential	15	2,194
Oil, all other	34	533
Opium	60	13,566
Paints, unspecified	....	6,014
Paint, colcothar	35	125
Paint, ocher	1	90
Paint, orange mineral	69	2,164
Paint, red lead	35	863
Paint, sienna	30	419
Paint, umber	22	73
Paint, Van Dyke brown	21	104
Paint, white lead	6	235
Pitch	23	213
Potash, bichromate	94	7,122
Potash, chlorate	261	5,010
Potash, carbonate	55	2,007
Potash, caustic	10	126
Potash, prussiate	20	1 266
Potash, sulphate	500	813
Potato flour	750	3,480
Quinine	86	18,517
Root, ipecac	3	425
Root, jalap	4	53
Root, sarsaparilla	202	2,619
Roots, all other	19	240
Soda ash	172	2,062
Soda, bichromate	34	1,576
Soda, caustic	606	6,997
Soda, sal	874	1,899
Sponges	36	1,672
Sugar of milk	31	1,104
Ultramarine	130	3,259
Vanilla beans	11	4,775
Varnish	10	649
Venice turpentine	22	894
Bristles	90	34,328
Brandy	691	6,198
Bitters	850	5,591
Cordials	125	829
Gin	1,040	3,151
Mineral waters	3,047	4,918
Rum	71	646
Whiskey	718	26,632
Wines	2,337	38,264
Dutch metal	14	2,590
Chillies	112	328
Cloves	138	2,767
Ginger	22	150
Mace	101	6,229
Nutmegs	483	24,912
Pepper	1,310	24,328
Cork	....	12,691
Empty barrels	....	24,380
Fustic	...	1,287
Logwood, M lbs	1,460	15,107
Candles	....	153
Clay	....	4.287
Corks	....	3,735
Cocoa, bgs	1,378	25,232
Cocoa, preparations of	140	3,851
Guano	. .	2,616
Musk	1	3,641
Portland cement	33,035	22,084
Perfumery	35	3,578
Sago	447	3,710
Seed, annatto	43	287
Seed, caraway	600	3,043
Seed, castor	1,162	3,713
Seed, hemp	200	623
Seed, millet	198	444
Seed, poppy	100	402
Seed, rape	2	
Soap	11	655
Soap, castile	500	1,498
Wax	....	1,564

Baltimore Imports.

Comparative statement of the Imports at the port of Baltimore, commencing January 1st, 1888 and 1887:

Articles.	This week.	Previously.	Same time '87
Agricultural salt, tons.	100	13,260	10,863
Cement, casks	...	21,390	10,898
Brimst'ne & sulph'r tns	...	8,908	6,695
Guano, tons.	...	2,684	4,98.
Nitrate of soda bgs	...	1,080	32,495
Spirits turp, bbls.	358	10,129	15,524
Rosin, bbls.	6,530	82,688	92,963
Tar, bbls.	264	3,895	3,358

Baltimore Exports.

Principal articles exported from Baltimore to foreign countries since 1st of January, 1888, and compared with same time 1887:

Articles.	This week.	Previously.	Same time '87
Bark quercitron, bgs	...	14,407	23,448
Sp. turpentine, gls	...	...	4,000
Rosin, bbls.	2,040	49,501	31,480
Oil Cake, pgs.	2,931	72,477	106,446
Petroleum, gls	...	4,701,461	5,372,549
Tallow, lbs.	...	6,044,C23	10,366,324

Yellow Prussiate of Potash.

The manufacture of this substance, although an industry of considerable importance, is comparatively little understood, either from a scientific or practical point of view. At all events, many prussiate makers seem completely at sea with regard to the most favorable condition for carrying on the manufacture, and there can be no doubt that in many cases great waste occurs through ignorance of the the various reactions which take place during the process, says *Industries*, from which we take the following conclusions: The raw materials usually consist of carbonate of potash, iron filings or turnings, and organic matters containing carbon and nitrogen—such as dried blood, woolen rags, horn, hair, leather scraps, etc. The most suitable substances for use are, of course, those containing the largest proportion of nitrogen. The following are the percentages of nitrogen in various kinds of animal matter:

Horn	15 to 17
Dried blood	15 to 17
Woolen rags	10 to 16
Sheep shearings	16 to 17
Calves' hair	15 to 17
Brist es	9 to 10
Feathers	16 to 17
Hide clippings	4 to 5
Old shoes	6 to 7
Horn charcoal	2 to 8
Rag charcoal	2 to 12

Animal matters always contain more carbon than is necessary for the formation of cyanogen by combining with the nitrogen also present. Consequently, when such substances are heated with pearlash, the excess of carbon reduces a portion of the carbonate to the metallic state, and this potassium combines with the cyanogen to produce potassium cyanide. The manufacture of prussiate of potash may be conveniently divided into three stages: (1) The production of the molten mass technically known as "metal," (2) the lixiviation, and (3) the crystallization.

(1) The "metal" is made by fusing animal matter with pearlash, almost invariably with the addition of iron scrap. The animal substances are sometimes used in their original condition, while sometimes they are previously charred. Generally speaking, however, a judicious mixture of the fresh and charred materials have been found to give the best results. The charcoal which is left on carbonizing animal matters contains a certain amount of nitrogen decreasing in proportion as the temperature rises, but a smaller quantity of charcoal is also thereby produced. For example: 100 parts of rags carbonized at certain temperature left 75 parts char c oal containing 12 per cent. of nitrogen, while the same rag carbonized at a higher temperature yielded 25 parts of charcoal, which contained only 2 per cent. of nitrogen. The animal matters employed should not leave much ash on ignition, as this would both thicken the mass and decompose a portion of the potash. In this respect sand is specially objectionable, for on ignition 1 part will decompose 2 of pearlash, owing to formation of silicate of potash. It is not necessary that the pearlash should be quite pure, in fact, a certain proportion of sulphate is stated to be useful, as it is changed into sulphide by ignition with the carbonaceous materials. The theory of the formation of yellow prussiate of potash may be briefly stated as follows: The carbonate and sulphate of potash react with the carbon, nitrogen and iron, forming in the first instance sulphide of potassium, which afterward converts the iron into sulphide, while potassium cyanide is simultaneously produced. It should be here explained that ferrocyanide of potassium (yellow prussiate) is not formed during the ignition of the above mentioned materials, but results from the lixiviation of the fused mass with water. when the cyanide of potassium and iron sulphide decompose each other, producing ferrocyanide and sulphide of potassium. It is quite obvious that even if any ferrocyanide were produced during the process of fusion, it would almost immediately be decomposed, at the intense heat to which the mass is subjected, into potassium cyanide, iron carbide, and nitrogen gas. If any doubt were felt on this point, the experiments of Liebig conclusively prove that the formation of ferrocyanide takes place on dissolving the ignited mass in water, but not previously.

Liebig found that if the fused mixture be allowed to cool and then treated with moderately strong alcohol, potassium cyanide alone is extracted and the residue, when dissolved in water, no longer yields ferrocyanide. As ferrocyanide is not formed during the process of fusion the presence of iron in the preliminary stages may appear superfluous, but such is not the case. The presence of iron is necessary for two reasons, first, because the sulphate of potash which is generally present is converted into sulphide and bisulphide, and these, in the absence of iron, would decompose some of the cyanide of potash into sulphocyanate, thereby causing a loss of cyanogen so far as yellow prussiate is concerned; and, secondly, because potassium bisulphide has a very corrosive action on the iron pot in which the fusion takes place. When iron is present, it readily decomposes any alkaline sulphides, thereby preventing formation of sulphocyanate, and being itself converted into iron sulphide, which is again changed into prussiate by the action of the aqueous cyanide.

Pear-shaped iron pots were formerly used for fus ng the raw materials. The arrangement now generally adopted in large English works consists of a series of iron pots almost hemispherical in shape, set in brick work, and each heated by a separate fire and circular flue. These vessels are closed by iron lids, with apertures for the admittance of animal matters, the aperture being at once closed by a slide after each addition. Through every lid there passes a vertical spindle, carrying a set of blades for mixing the materials, and set in motion by a suitable shaft worked by steam power. Instead of the ordinary iron pots, reverberatory furnaces are often employed, especially in Germany. The reason for this preference is that ordinary iron vessels are worn out in a comparatively short time, the destructive action being greatest on the under surface of the muffle. A much larger quantity of raw material can also be operated upon at one time if a reverberatory furnace be used. The mode of procedure depends to some extent upon the condition of the organic materials employed. If fresh, the muffle or furnace must be left open, so as to permit the mixture to be well and frequently stirred, and additions to be made at intervals until eventually ammonia ceases to be evolved. The furnaces are arranged in such a manner that when the carbonate of potash has once become fused the doors of the fireplace may be shut, and no fresh firing is required during the introduction of the animal matters. The molten mass is kept well stirred by means of a thick iron bar, suspended by a chain, and fixed in an aperture in the side of the furnace. By the use of this arrangement, the stirring is much more easily and thoroughly effected than is the case with the old fashioned pots.

Ordinary reverberatory furnaces cannot be used for the fusion, because the silica in the hearth would combine with the potash to form silicate of potash. Gas generators with air blasts are now sometimes employed instead of ordinary fuel in the manufacture of yellow prussiate of potash. Several advantages are gained by operating in this manner, especially that of permitting the regulation of temperature and the admission of oxygen, so as to obtain an ordinary, a neutral, or a reducing flame, according to requirements. In the preparation of the "metal" for every 100 parts of pearlash from 100 to 125 parts of fresh animal substances are required, together with 6 or 8 parts of iron in some form or other. The pearlash, or a mixture of 1 part of pearlash with 2 to 4 parts "blue salt" or "blue potash" (this substance will be referred to later on), is melt d in the furnace and heated to bright redness, so that the temperature of the mass may not be reduced too much by the addition of the animal matters. These, in their original condition, or an equivalent quantity of carbonized materials, together with the proper proportion of iron, are then introduced—first pretty frequently, afterward at longer intervals. Each addition of animal matter causes a somewhat violent frothing and escape of combustible gases, along with water and carbonic acid, and the whole becomes thick—not so much owing to the introduction of solid substances as by the fall of temperature, resulting from the production of such large quantities of gas. In order to hasten the decomposition, vigorous stirring must be applied. When the reaction is at an end, the semi-fluid mass is transferred to cast iron dishes, and the furnace again filled with carbonate of potash and heated. In this way four or five charges may be accomplished every day, and the process carried on almost continuously.

The most favorable conditions for effecting the melting part of the process are attained when the heat approaches whiteness, and a bright, clear flame is produced as soon as the raw materials are introduced. According to one authority, woolen rags and good pearlash, with a small proportion of waste iron, have produced the largest yield of yellow prussiate, although even in this case two-thirds of the total nitrogen present was lost in the form of ammonia.

2. Lixiviation.—The fused mass, if properly prepared, should yield about 16 per cent. of prussiate on dissolving in water. In this part of the process, the "metal" when cold is broken into lumps and placed in cold water mixed with the weak lyes from former operations. Heat is then applied, until the temperture rises to about 180° or 190° F., and the liquid stirred vigorously so as to promote rapid solution, because some of the potassium cyanide is apt to be decomposed during lixiviation. When the solution attains a density of from 30° to 40° Tw. it is left to clarify, the heat being withdrawn. The clear solution is decanted, and evaporated in pans which are generally heated by the waste heat of the furnaces. When it has a density of 54° Tw. it is run off into the crystallizers, where it deposits the crude salt.

3. Crystallization.—This is a very important stage of the manufacture, as it is the final process by which the crude prussiate is rendered sufficiently pure to be placed on the market. The impure substance is dissolved in warm water until the solution stands at 54° Tw., and after all insoluble matter has deposited, the clear liquor is placed in the crystallizing vessels. These are occasionly made of wood, but when such vessels are used the crystallized salt generally possesses a green color which is believed to be due to the tannin present in the wood. On this account cast iron crystallizers are more frequently employed. The crystallization proceeds slowly—often going on for several weeks in large vessels. The mother liquor is then drawn off, and, if not too impure, is used for dissolving fresh quantities of the crude prussiate. The ferrocyanide is deposited in crusts in the crystallizers. But by hanging lumps of the solid salt in the solution long clusters of crystals may be obtained, and by suspending these in fresh prussiate lyes immense crystals are produced. From 100 parts crude prussiate about 90 parts pure potassium ferrocyanide are obtained, or sometimes in the case of purer materials 97 parts.

Sulphate of potash is often present in commercial yellow prussiate. The separation of this impurity is best effected on the large scale by evaporating the prussiate solution to a density of 62° Tw., at which point most of the sulphate will crystallize out. If the clear liquor be then drawn off, diluted to 52° Tw., and allowed to cool, almost pure potassium ferrocyanide will gradually deposit. This may be rendered absolutely pure by gently fusing the crystals, dissolving in water, and treating with a small quantity of acetic acid, which will decompose any carbonates and cyanides. On adding sufficient strong alcohol the ferrocyanide is precipitated, and when crystallized once or twice more from water it may be regarded as chemically pure.

Blue Salt.—This substance, to which we have previously referred, is a residue obtained in the manufacture of prussiate of potash. The last mother liquor contains a large quantity of carbonate of potash, along with smaller amounts of hydrate, silicate, chloride and sulphocyanate. It is concentrated until the liquid has a density of 90° Tw., when most of the chloride, silicate, etc., separates out, and the strong liquor containing the greater proportion of the carbonate is evaporated to dryness and calcined in a reverberatory furnace. The dry residue constitutes the blue salt or blue potash, and contains from 70 to 80 per cent carbonate of potash. It may be employed instead of pearlash, or mixed with it for the next batch of yellow prussiate. The composition and amount of the insoluble residue left on lixiviation of the metal vary according to the proportions and character of the raw materials used. Other conditions being equal, horn gives the lowest percentage of insoluble matter on lixiviation.

The large proportions of potash and phosphates contained in the insoluble residues render them well suited for use in the manufacture of artificial manures. As already mentioned, when regarded from a scientific or economical point of view, the yellow prussiate industry is carried on under very imperfect conditions. In addition to the amount of potash there is a very considerable waste of nitrogen; first, because the larger proportion of that element present in the animal substances is not converted into cyanogen at all, but passes off chiefly in the form of ammonia salts; and, secondly, because part of the potassium cyanide which is actually produced is lost by decomposition, and another portion is left in the mother liquor. It has been calculated that out of every 100 parts of ferrocyanide which should theoretically be obtained, 4 parts are lost when fairly pure materials have been employed, and 14 in the case of impure ingredients.

The following analyses indicate the percentage composition of two samples of insoluble residue:

	No. 1.	No. 2.
Sulphate of potash, etc.	9·06	3·21
Phosphates of lime, magnesia, and iron	13·74	6·24
Oxide of iron.	13·34	19·58
Lime and magnesia	5·08	7·23
Sand and silicia	23·97	29·24
Charcoal and moisture.	34·81	34·50
	100·00	100·00

According to Karmrodt, the following proportions of the nitrogen contained in various animal substances are actually converted into cyanogen during the manufacture of yellow prussiate of potash.

	Per cent.
Woolen rags	16
Horn	20
Leather cuttings	33
Cow hair	14
Dried blood	16
Horn charcoal	56
Rag charcoal	33

As is well known, human excreta contains a considerable proportion of nitrogen, and there seems no reason why this should not be employed in the manufacture of yellow prussiate. It is quite possible that municipal bodies might find this a convenient and profitable plan of disposing of a portion of the sewage with which they have to deal. It is obvious to all persons who have given this subject much consideration, that the nitrogen required in the manufacture of yellow prussiate of potash might be obtained with comparative ease from the surrounding atmosphere. Indeed, from a theoretical point of view, this seems a charming process. About fifty years ago the Society of Arts awarded Mr. Lewis Thompson a medal in connection with this very process. Mr. Thompson ignited a mixture of 2 parts pearlash, 2 parts coke, and 1 part iron turnings in an open crucible for a considerable time at a full red heat. The resulting black mass was found to contain a large quantity of ferrocyanide, together with excess of carbonate of potash, etc. This process, or a similar one, in which a current of air was passed over a mixture of charcoal and iron saturated with carbonate of potash, was tried on a large scale for two years at Mr. Bramwell's works, at Newcastle. About one ton of yellow prussiate was made daily by this process, but it was not found to work profitably, and was eventually abandoned, chiefly, it is said, owing to the large amount of fuel required, and because the cylinders, whether of iron or fire clay, were not able to stand for any length of time the intense heat to which they were subjected.

The Formation of Petroleum.

(Continued.)

The difference in the behavior of the fish oil employed in the above experiments, when heated to a low temperature is shown by distillation in partial vacuum. About 80% by weight of the oil distils over, with the evolution of combustible gases. The distillate solidifies and forms a pale yellow, buttery mass, containing only 10% of hydrocarbons, the remainder still being saponifiable. Water is formed in exceedingly small quantities. The observed behavior of animal fats, of giving about 60% of their weight of crude oil, consisting of nine-tenths of hydrocarbons, when the fats are distilled under pressure at comparatively low temperature, appears to me, to furnish a new support to the theory that petroleum is formed from animal remains.

Considering that there are important objections against the theory of the formation of petroleum from inorganic matter, as is assumed by Berthelot, Bryasson, Mendelejeff and others, there only remains the assumption that vegetable or animal remains supplied the raw material for the formation of petroleum. Supposing the formation from vegetable remains, the process of distillation must have taken place at comparatively low temperatures. Then there would have to be found in the vicinity or (assuming secondary deposits) in some recognizable relation to the petroleum deposits carbonized vegetable remains. This is however not the case in any of the extensive petroleum deposits which have been thoroughly investigated. On the other hand we would expect the occurrence of liquid hydrocarbons, or other bitumina in the neighorhood of coal deposits. This also is not the case, for where liquid hydrocarbons are enclosed in, or run out from coal beds, we find on closer examination, that the oil does not come from the coal bed itself, but from other strata, as for example in the famous locality of the coal beds at Wombridge, England, where it originates in sandstone, or it is connected with in the coal bed with strata, containiug animal remains. Large deposits of pelroleum are never found in coal fields.

Upon the other hand it is definitely settled, that wherever petroleum is found in primary strata, vegetable remains are scarcely or never found, While animal remains are always present. Of particular interest, from a chemical point of view, in this connection are the orthoceratites in the Trenton lime stone, at Packenham, Canada, the former habitation of which now and then contains up to several ounces of oil, as shown by T,. Sterry Hunt. Fraas also observed the occurrence of petroleum as an exudation on a coral reef, which now projects above the surface of the sea, on the coast of the Red Sea, near Djebel Zeit. Similar observations were made on fossil corals in Canada, on Carpathian fish slates. In the Imuschelkalk, small cells filled with petroleum have also been noticed. Finally, Hoefer call attention to the fact that all slates, which give hydrocarbon oils on distillation are rich in animal remains, while they show few of vegetable origin, also that the rocks, which contain large quantities of vegetable remains, are not bitu-

minous as a rule, but become so, when animal remains are also present.

That the petroleum originates from a marine fauna (assuming an animal origin) is not only indicated by the animal remains found in geological connection with them, but also by a whole series of circumstances, not the least of which is the simultaneous occurrence of salt water with petroleum.

Let us more closely consider the formation of petroleum from animal remains, from a purely chemical point of view. We are inclined as chemists, because we operate more with vegetable matters in the same direction, to consider these as the material for the formation of petroleum. If, however, palaeontologists place an immeasurable quantity of animal substance at our disposal, which they can well do on account of the abundance of their fossils, the question of the formation of petroleum from animal remains (leaving out of consideration the geological relations) is as much justified as that of the formation from animal remains.

I start with the assumption, that the question put by G. Kraemer, whether in the formation of the paraffines and naphthenes contained in petroleum, various temperatures and pressures must have existed, is to be answered in the affirmative, further, that from the character of the constituents of petroleum and the absence of carbonaceous residues, the distillation must have taken place at a low temperature, and more probably that the pressure under which the hydrocarbons were formed from the animal residues, was often such that it caused an immediate condensation of the products formed. In this connection I will only call attention to my experiments, in which I succeeded by heating fish oil to 350° C., in sealed tubes, without using the elongation for condensing the oils formed, in dissociating the oil into hydrocarbons, water and other products. Like in the closed tube, the animal substances of former geological periods, surrounded by impermeable strata, may have been subjected to this pressure. In view of the sedimentary deposits overlying the oil bearing strata, we have sufficient positive evidence of the existence of such pressure as has already been pointed out by Hoefer. The orthoceratite chambers filled with petroleum, at Packenham, are such chambers on a small scale. It also appears that in some cases the pressure of the sea, overlying the strata, has taken a part, as pointed out by Fraas at Djebel-Zeit.

The absence of a series of chemical compounds, such as acrolein, allyiene compounds and fatty acids, with a small number of carbon molecules, which apparently should be present as products of the decomposition of fat is not surprising when we consider that by the thousands of years contact with water the soluble substances must be leached out of the petroleum. The glycerine, as shown further on, may have been split off and removed before the conversion into petroleum took place. An examination of crude oil, from an undoubtedly primary deposit, in this direction would give results of the greatest interest.

The absence of nitrogen in petroleum, however, appears remarkable at first sight. This absence, although not in the same degree, would also be remarkable if petroleum were formed from vegetable remains, for although the latter contain considerable less nitrogen, we know that the products of their dry distillation contain considerable quantities of nitrogen. For, in addition, the alkaloids contained in the tar, the total nitrogen of ammonia and its salts is derived from coal, i. e., from vegetable remains. But it cannot be said that all petroleums are free from nitrogen, for its presence has been positively shown in a whole series of petroleums. Peckham has shown its presence in a number of American oils, St. Claire Deville and Bousingault in Alsatian oil, and the latter investigator in a petroleum from China (Ho Tsin), by Delesse in pitch from Trinidad, etc. Feodorowicz observed ammonia in the petroleum from Siary (Galicia), and Carnegie found crystals of ammonium carbonate in the gas wells of Pittsburg.

In conclusion attention is called to one fact, which in all previous considerations of this matter has received too little attention, which, however, on closer examination, will make it appear natural, that the presence of nitrogen in petroleum is an exception and not the rule.

Though I am well aware that a well defined eneric difference does not exist between the chemical compounds making up the animal and vegetable bodies, that the plants as well as animals contain nitrogenous bodies, fats, etc., which are necessary to their life and propagation, it is nevertheless clear that in the organic substances of the animal kingdom we have two different classes of compounds. For while plants have a certain uniformity in the composition of their mass, animals consist essentially of two classes of compounds: nitrogenous muscular substance, and nitrogen free fat and this is specially the case in the marine fauna, which we are considering. The durability of these two substances differs greatly. The nitrogenous bodies rapidly decay and are decomposed, while the fats are not. It is certainly justifiable to assume that in the accumulated animal cadavers of past ages, the decomposition took place in two principal phases. First the nitrogeneous bodies are decomposed, the nitrogen escaping as such or in the form of ammonium and its compounds, or even more complex bodies, or that it was removed by the action of water, leaving the fat behind (which in some cases may have been transported to secondary deposits) which was at some future time converted into petroleum by pressure and heat, perhaps also essentially by the former. In this connection I would call attention to the investigations of Gregory, and particularly to those of Wetherill.

The latter found in the bones of the *Bison Americanus* 86.3% fatty acids with some coloring matter, 10.1% lime with a trace of the phosphate, and 33.66% "flocculent organic matter," and in a large number of corpses from fat people, which had been buried in wet ground, that the process of decomposition left a waxy mass "adipocere," which essentially (97-98%) consisted of fatty acids. The same result was obtained in the case of a sheep, which had been buried ten years. In no case, however, did he find ammonium in the residual mass. Before him, Gregory found in the remains of a hog which had been buried for fifteen years a residue consisting of adipocere, containing 25% stearic and 75% palmitic acid and oleic acid. The bones had entirely disappeared. Direct experiments made by Wetherill finally showed that animal substance (an ox heart), when subjected to decay loses its nitrogen, and leaves the fat in the form of adipocesa. These cases may suffice to show the permanency of animal fats, whether the glycerine is already split off or not.

If we now consider a sedimentary rock filled with such fatty masses, the residues of animal remains, and that they are afterwards brought under the influence of heat and pressure, the formation of petroleum is explained. It is possible that the ammonia in the petroleum from Siary, and the ammonium carbonate in the gas wells of Pittsburg, are derived from the nitrogenous residues of animals. The presence of nitrogen in petroleum, is not however necessarily an indication of the formation from animal remains. The absence of carbonaceous matter in the petroleum, or in genetic relation thereto, could not heretofore be brought in accord with the theory of the formation of petroleum from organic matter. This fact, however, is more against the formation from vegetable than from animal matter. Assuming cellulose ($C_6H_{10}O_5$) as representative of the former, we have in it 44·4% carbon, 6·2% hydrogen and 49·4% oxygen. If only a small quantity of these elements unite to form water, there remains a residue so poor in hydrogen, and so rich in carbon, that without a separation of carbon the formation saturated hydrocarbons, or even of the series C_nH_{2n}, cannot be perceived.

It is probable for general reasons, that the higher the pressure, and the lower the corresponding temperature, the greater will be the water, and the less the carbon dioxide formed. But the more water expelled the greater will be the carbon remaining. It is evident, that the formation of hydrocarbons from cellulose cannot be denied, only I believe it impossible, that this should take place without leaving a residue of carbon, or of material rich in carbon.

The case is altogether different with animal fats or the fatty acids obtained by the elimination of the glycerine, We have in:

	Tri-stearin per cent.	Tri-palmatin. per cent.	Tri-olein per cent.	Stearic acid per cent.	Palmitic acid per cent.	Oleic acid per cent.
C	76·6	75·9	77·4	76·1	75·9	76·6
H	12·4	12·2	11·8	12·7	12·5	12·1
O	11·0	11·9	10·8	11·2	12·5	11·3

The elementary composition of fish oil is also within the above limits. If we eliminate from these fats, or better from the fatty acids, the total oxygen with the necessary quantity of hydrogen to form water, there will remain carbon and hydrogen in the proportion of 87 to 13, which is remarkably close to the composition of or crude petroleum.

In this connnection I would call attention to the analysis of petroleum from Baku by Markownikoff and Ogioblin who found:

	I. Per cent.	II. Per cent.	III. Per cent.
C	86·65	87·01	86·89
H	13·35	13·22	13·18

Also the numerous analyses by St. Claire Deville, who found in petroleum from:

	C. Per cent.	H. Per cent.	O. Per cent.
Pechelsbronn (Alsace)	85·7	12.0	2·3
Schwabweiler (Alsace)	86·2	13·3	0·5
Oedesse (Hannover)	80·4	12·8	6·9
Wietze (Hannover)	86·2	11·4	2·4
East Galicia	82·2	12·1	5·7
West Galicia	85·3	12·6	2·1
West Canada	84·2	13·4	2·3
West Canada	84·3	13·5	2·0
West Virginia	83·2	13·2	3·6
West Virginia	83·6	13·9	3·5
Walachia	83·0	12·2	4·8
Piemont	86·4	12·2	1·4
Zante	82·6	11·8	5·6
Burmah	83·8	12·7	3·5

Deducting in these analyses the oxygen, with the requisite quantity of hydrogen, and calculating the residue of carbon and hydrogen to percentages, we will in every case obtain values corresponding approximately to 87 per cent carbon and 13 per cent hydrogen.

These considerations also explain why we find no carbonaceous residues in connection with petroleum deposits. The decomposition of fats or fatty acids under very high pressure, takes place without the formation of such residues, and I would here recall the fact that the conversion of fatty matters in the closed tubes often takes place without the formation of any carbonaceous residue.

Finally, I cannot agree with the theory of the formation of petroleum from vegetable remains, for the reason that in marine life, plants play an inferior part. They can only accumulate in large quantities near the coasts. The Saragossum algæ, which form floating islands on the ocean, only appear sporadically, and their occurrence is insignificant as compared with the marine fauna.—*Chem. tech, Centr. Anz.*

The Early Exhaustion of Natural Gas.

The oft repeated statement in the *Progressive Age* that the complete failure of natural gas is only a question of a comparatively short time is becoming an old but, nevertheless, a very true story, and no set of persons realize the force of the statement better than those most interested in natural gas, viz., the natural gas companies. When natural gas first began to attract attention we made a very thorough investigation of the gas belt and consulted several experienced oil and gas explorers as to the probable durability of the article in question. The result of these inquiries and careful research satisfied us that natural gas was only a temporary, though while it lasted, a very wonderful substitute for coal and wood, that aside from this temporary advantage its benefits were wholly in the lesson taught by it in awakening the fuel user to the great benefit of gaseous fuel. Time has witnessed the truth of our early predictions, and a week does not pass without showing the force of our position by the reports of the giving out of numerous gas wells, and by the statements of experts who are constantly engaged in watching the development and condition of the different wells throughout the entire natural gas belt. We make the statement, on the best authority, that there is not to-day a single gas well in all the Pennsylvania territory which is putting out fifty per cent of the volume of gas which it did the first month of its discovery, and in very numerous instances gas wells of enormous pressure, when first opened, have been abandoned. Mr. Selwynn Taylor, a reputable mining engineer and gas and oil expert of Pittsburgh, said, within a few days, that "within two years at furthest coal lands will be selling for what they were considered worth before natural gas was thought of. This will be due largely to the failure of the gas fields to supply the demands made upon them. Gas, like oil, will in time exhaust itself. New fields may be opened, but taking all in all, I think the outlook for coal was never so bright since natural gas came in use. It is not published, but all the large gas fields are playing out. Murraysville has seen its best days, and all the wells in the Beaver and Ohio valleys are going. The prospects for fields large enough to take their place in case of total failure are not bright by any means. The big natural gas companies recognize this as a fact, and are expending thousands of dollars on a process for making fuel gas. This is significant. In my judgment two years will see an end to natural gas as a fuel."

We do not agree with Mr. Taylor that those who have accustomed themselves will go back to coal; they may do so temporarily, until arrangements can be made to supply manufactured gas, but the users of gaseous fuel will never consent to return to coal as a permanent fuel. The financial article of the *Daily Graphic*, an authority on Wall street matters, said a few days ago: "The holders of natural gas securities are unhappy. The diminution of supply of many wells, and the activity of the officials of several natural gas companies to secure a process for making fuel gas, presumably in view of the total lack of supply of the natural article at an early day, is certainly cause for anxiety among holders of these securities. A year or more ago the Philadelphia Company, which has been regarded as the largest natural gas company in Pittsburg, listed its stock on the Exchange here, but the uncertain character of its business did not make the dealing in the stock particularly attractive. It was generally supposed at the time that the insiders hoped for an outlet but, failing in this, it is now reported that George Westinghouse, head and front of the company, has his agents scattered over Europe trying to induce the foreigners to take the stock at 40. New Yorkers were asked to come in at 108 and 125. Oil and gas experts are agreed in saying that the life of natural gas has about run its length.

The financial gossip of the *Mail and Express* also has this to say in confirmation of the statements contained herein: "Philadelphia gas stock, according to Pittsburg advices, is being bought by English investors on the advice of Mr. George Westinghouse. In this case the Pittsburgers have treated the Englishmen better than they did their New York friends, for they placed a considerable amount of the stock on this market between 108, the figure at which it started, and 125."—*Progressive Age.*

Clearances of Petroleum.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Baltimore, Boston and San Francisco on the dates named. Refined, unless otherwise specified:—

NEW YORK.

Aug 7

Nor str Gwent, Bergen, 2,558 bbls
Br str Sandringham, Arecibo, 200 cs
Br str Sandringham, Mayaguez, 1,110 cs
Br str Sandringham, Ponce, 300 cs
Br str Sandringham, San Juan, 775 cs
Br str Vertumnus, Montego Bay, 200 cs
Br str Trinidad, Hamilton, 40 cs, 57 bbls
Br sh Laomene, Batavia, 69,852 cs
Br bk J E Graham, Melbourne, 21,725 cs
Am sh McLaurin, Saigon, 47,000 cs
Am bg Manson, Aquadilla, 200 cs
Am bg Manson, Mayaguez, 600 cs
Aus bk Virgo, Cette, 2,439 bbls cde
It bk Riinnovato, Bangkok, 28,235 cs
Am bk Mendoza, Havana, 30,183 gls cde bulk

Aug 8

Br str Burnley, Br West Indies, 55 cs
Br str Burnley, Georgetown, 1 bbl
Br str Burnley, Antigua, 40 cs
Br str Burnley, Montserrat, 30 cs
Br str Phoenix, Rouen, 7,811 bbls cde
Br str Atlas, Gonaives, 19 cs
Br str Atlas, Pt au Prince, 30 cs
Br str Atlas, St Marc, 1 bbl
Span str Gallego, Liverpool, 10,169 bbls

Aug 9

Br bg Gaerwen, Bahia, 9,000 cs
Br bk Gladiateur, Rosario, 3,000 cs
Br sch N Bruce, St John N B, 600 bbls, nap 5 bbls
Span str, Mexico, Havana, 100 cs
It bk Mariannini, Montevideo, 3,000 cs

Aug 10

Nor str Viking, Elsinore, 1,956 bbls
Am str Newport, Panama, 50 cs
Am str Newport, Buenaventura, 2 cs
Am sch Kensett, Bordeaux, 2,571 bbls cde
Br bk Savanna, Belfast, 4,508 bbls
Br bk Struan, L'pool, 9,734 bbls

Aug. 11

Br sch M A Nutter, St Johns N F, 300 bbls
Br sch Reporter, St John N B, 100 cs, nap 1 bbl
Am bk Thos Brooks, Santiago, 6 cs
It bk Giacomino, Marseilles, 2,673 bbls cde

Aug 13

Am str Santiago, Havana, 30 cs
Am bk N Brett, Buenos Ayres, 3,000 cs
Am bg Pearl, St Croix, 125 cs
Br str Muriel, Domenica, 58 cs
Br str Muriel, Barbadoes, 50 cs, 1 bbl
Br str Muriel, St Lucia, 135 cs
Br str Muriel, Basse Terre, 11 cs
Br str Muriel, St Pierre, 500 cs
Br str Muriel, Br West Indies, 350 cs
Br sch Gelert, Cayenne, 300 cs
Br bk Thos Keillor, Antwerp, 6,800 bbls
Br bk Arlington, Cardiff, 5,112 bbls
Dtch bg Marie, St Martin's, 125 cs
Ger sh Leocadia, Hamburg, 4,762 bbls
Ger sh Anna, Hamburg, 7,669 bbls
It bk Jose E Maria, Marseilles, 3,030 bbls nap

BOSTON

Aug 6

Sch St Croix, Rufiique & A M, 2,200 cs

Aug 7

Bk Eliezer, Port Elizabeth, etc, 3,925 cs

Aug 8

Sch Carrie Fisher, Greysboro, etc, 40 bbls

Aug 9

Bk J Cushman, Cape Verde & A M, 600 cs
Bk Kennard, Flores & A M, 80 bbls, 140 cs
Sch Galatea, St John, 15 bbls
Bk Triton, Chris. & Elsin., f o, 2,167 bbls

Aug 10

Sch Susie P Oliver, Gonaives, 100 cs

PHILADELPHIA

Aug 4

Sch Nelson Bartlett, Calcutta f o, 24,500 cs
Br str Scandinavian, Rouen, 4,721 bbls cde

Aug 7

Fr str Ville de Calais, Calais, 740,555 gls
Fr bk Glint, Stettin, 3,611 bbls

Aug 8

Br bk Cyprus, Batavia f o, 36,909 cs
Br bk Recovery, Ghent, 6,062 bbls

Aug 9

Br bk Egesia, Dunkirk, 5,335 bbls cde
Nor bk Lady Blessington, Danzig, 7,149 bbls
Br bk Aspatogan, Bristol, 5,205 bbls
Br bk Lancefield, Dantzig, 6,142 bbls

SAN FRANCISCO

July 28

Newbery, Mexico, 5 cs

Imports of Empty Petroleum Barrels.

NEW YORK

71, E. Puig, Panama, Havana
1,200, R. A. C. Smith, A. Forrest, Havana
4,539, Sawyer, Wallace & Co, Alice, Stockholm

PHILADELPHIA

5,314, order, Frisk, Copenhagen.
4,175, order, Senator Iken, Hamburg

THESE TWO BRANDS OF

LUBRICATING OIL

Are the Best

AND MOST POPULAR

In the Market.

Have been endorsed by hundreds of the largest consumers and recommended by the leading Engine Builders in the Country.

STANDARD OIL COMPANY,

CLEVELAND, OHIO.

THE

DOMESTIC TRADE DEPARTMENT

OF THE

ATLANTIC REFINING CO.

OFFICE, 125 ARCH ST., PHILADELPHIA.

CONTINENTAL AND

150 FIRE TEST.
WATER WHITE.

"ATLANTIC"
In convenient cans, each furnished with a nozzle.

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OILS.

Sole Manufacturers of the Celebrated Brands

"OPTIMUS" ◇A and ◇O LUBRICATING OILS.

For Car Boxes and Heavy Journals.

CASOLINES all Gravities, from 62° to 105°. Orders will receive prompt attention.

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Having representatives in the primary markets, we will be glad to name prices for

SPIRITS TURPENTINE

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ROSINS

Delivered in any of the Southern and Western Markets.

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WATERS PIERCE OIL CO.,

REFINERS OF

PETROLEUM.

Manufacturers of CAR and AXLE GREASE.

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Depots in all Towns in the SOUTHWEST and OLD MEXICO.

The Standard Lubricating Oil of America

FOR RAILROADS

Galena Engine, Coach and Car Oil

Gravity 26°, 27°, 28°, 29°; Cold Test, 10° to 15° deg. below zero.

No freezing in coldest weather, and entire freedom from hot journals at any time; perfect uniformity at all seasons of the year. Saves forty per cent. in wear of brasses, as its exclusive use upon a majority of the leading railroads has demonstrated.

SHOWING BETTER RESULTS THAN ANY OIL EXTANT.

REFERENCE FURNISHED ON APPLICATION.

GALENA OIL WORKS, Limited

CHAS. MILLER,
Pres't and Gen'l Manager.

FRANKLIN, PA.

THE CHIEF TROUBLE WITH OIL

that does not burn satisfactorily is that the lamp wick is made from short, irregular staple, is poorly woven or is full of foreign substances. A wick having one or more of these faults has a low capillarity to begin with, and after short service begins to clog in the burner and char at the top causing a dim, smoky flame from the best refined oil. Since, however,

THE AMERICAN WICK

has been introduced this fruitful source of annoyance and dissatisfaction has been largely done away with and there is now no excuse for the trade's selling poor wicks or for consumers' accepting them. It is made from pure, long staple cotton, is woven with absolute uniformity and is chemically treated during the process of manufacture in a way to remove the last vestige of foreign substances. The result is a ***PERFECT WICK*** which is now sold and recommended by the very houses--the lamp, burner and oil dealers--whose interests compel them to recommend the best wick made.

We make wicks for every style of burner in the market. For samples, prices and all information, address

AMERICAN WICK M'F'G CO.

JOHN DOUD, General Manager, *26 BROADWAY, NEW YORK*

POPULAR SPECIALTIES

Wide awake Jobbers and retailers realize that there are certain commodities that become standards in consequence of their increasing popularity year after year. Not because they are forced upon the trade, but on account of their intrinsic worth. It is the keen tradesman that caters to this established demand instead of taking advantage of the consumer by palming off on him some cheap imitation. The former course is a practical protection of commercial relations, while the latter destroys confidence and injures trade. Practical experience of nearly a quarter of a century has taught the shrewd consumer that there is no better leather preservative known to the trade than ***VACUUM HARNESS OIL.*** The peculiar process and care in manufacture, secures a uniformly good article. It penetrates the leather, making it soft and pliable. giving double wear to Harness, Carriage Top, Shoes, etc. Some people, however, will count the first cost and for this trade is the ***FAVORITE HARNESS OIL*** of the same grade, only a little less in quality at "way down" prices. The only satisfactory cheap oil. Another essential to every well regulated stable; almost as indispensable as hay; is the ***VACUUM HOOF OIL;*** a peculiarly penetrating and searching salve. Horsemen know it is the great remedy for Sores, Wounds, Galls, Sprains, Quarter Crack. These goods are offered to the trade at discounts that pay for handling, and on liberal credit. Send for prices and other information to

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No. 44 Gay's Building, St. Louis.
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The Albany, Liverpool, Eng.

No. 208 Home Insurance Building, Chicago.
No. 216½ Wash, Ave. So., Minneapolis.
No. 231 Smith's Wharf, Baltimore.
No. 188 St. James St., Montreal

No. 96 Water St., New York.
No. 305 Walnut St., Philadelphia.
No. 150 First Ave., Pittsburg, Pa.
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WE PREPARE a little pamphlet detailing the advantages of some of these fluids, which druggist will find especially useful, and we will send this on application. We may mention here a few illustrative preparations.

Fluid Aloes
Concentrated Extract Bay Laurel
Fluid Extract Blackberry
Fluid Extract Buchu and Juniper with Acetate of (Potassium
Fluid Catechu
Fluid Extract Wild Cherry Bark, Detannated
Fluid Wild Cherry Bark for Syrup
Fluid Extract Cinchona Compound
Fluid Extract Cinchona, Red Compound
Fluid Extract Sarsaparilla Compound for Syrup
Fluid Extract Ergot
Fluid Extract Gentian Compound
Fluid Ginger, Soluble
Fluid Extract Golden Seal
Fluid Extract Ipecacuanha
Fluid Extract Licorice for Quinine Mixtures
Fluid Opium, Aqueous and Deodorized
Fluid Opium, Camphorated
Fluid Extract Rhubarb
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Fluid Rhubarb, Sweet
Fluid Tolu, Soluble
Aromatic Syrup Yerba Santa

It will at all times give us great pleasure to mail on application, complete descriptive price list and literature descriptive of our products, and to afford any information in our power regarding them.

PARKE, DAVIS & CO.,

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MERZ CAPSULES.

Reduction in Price.

1000 Merz Improved Empty Capsules in Lacquered Metal Can, 65c.

500 Hard Filled Capsules in Lacquered Metal Can:
Copaiba Para ..... 40c per hundred.
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OVER 100 STANDARD FORMULAS IN HARD AND SOFT FILLED.

LARGE QUANTITIES IN BULK A SPECIALTY

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Shellac, all grades. **Verdigris,** Pods, Granulated and Powdered.
Carbolic Acid, **Cudbear.**
Powd. Nit. Strontia, **Madder,**
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Water White. **Inactive.**

The only reliable test of the purity of terebene is its perfect inactivity to polarized light. Careful examination of different brands now on the market has shown our preparation to be the only one free from turpentine. All other samples containing from 5 to 50 per cent.

We use only the best unadulterated oil of turpentine and careful tests are made with the polariscope during the whole process of manufacture.

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GLASS BOTTLES & GLASSWARE SUNDRIES,

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227 Pearl Street, NEW YORK.

DRUG MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*
The prices current will be found on pages 49 and 50.

TUESDAY EVENING, August 14, 1888.

Cooler weather has revived the energies of dealers in drugs, apparently, for we find a better business doing the last few days, and more life manifested on all sides, still trading is confined strictly to jobbing channels as a rule, transactions in round lots being very few Changes in prices have been more numerous than for some time past, though the leading articles have experienced little fluctuation as will be seen by the following list:

ADVANCED.	DECLINED.
Quicksilver,	Grape sugar,
Eng. calomel.	Glucose.
Civet,	
Balsam copaiba,	
Cuttlefish bone,	
Buckthorn bark,	
Oil copaiba,	
Oil sassafras,	
Oil wintergreen,	
Gentian root,	
Senega,	
Caraway seed,	
Celery seed,	
Eng. coriander,	
Shellac.	

Opium.

A very quiet market is reported but there is a little better feeling among holders without quotable improvement in prices. For single cases $2 75@2 80 is named though earlier in the week some holders might have been induced to shade the inside figure. For jobbing quantities a fair demand exists and it is supplied within the range of $2 80@2 85. Late advices from Smyrna quote 7s 6d@8s 5d. The inside figure is supposed to represent the price asked for new crop for the outlying districts of Smyrna, which is said to be of poor quality, while the higher figure is believed to be for old crop, and is said to be the price recently paid for shipments to China. It is said that the talk of so much low grade stock being on this market has made buyers very particular as to the test of the opium they buy.

Quinine.

There has been no improvement in the position of quinine. Dealers report a continuance of the active jobbing demand, but there is an absence of orders for large quantities. The tone of the market has been steady throughout the week with nothing offering from second hands below 34@35c as to brand. The London bark sale to-day went off at steady prices, full figures being obtained. There were 2,530 bales sold, mostly East India.

Receipts of quinine for the week.....	78,000
Since Jan. 1.....	1,085,3 0
Corresponding period last year.....	1,461,356

Miscellaneous.

Alcohol is moving steadily into consumption on jobbing orders and the market remains firm at $2 20@2 22 as to quantity. Wood alcohol is dull and easier.

Borax is firm with an upward tendency. The demand is good. We quote 8¼@8¾c for California refined, 8⅝@7⅛ for city refined and 7⅝@7¾c for concentrated.

Codliver oil is unchanged. The consuming season has not opened yet, and the market is rather quiet.—Norwegian is held at $22.50@28 as to brand, and Newfoundland at 65@70c per gallon.

Colocynth apples are very firm, owing to light stocks. Prime Trieste are held at 50c and Spanish at 28@30c.

English calomel has advanced to $1 05@1 10, with sales prior to the rise at $1. The domestic mercurials have not changed, being relatively higher than quicksilver.

Cuttlefish bone is now quoted at 21½@22c, and offers sparingly.

Insect powder is still in active request at the previous quotations. The published statements regarding Hungarian daisies have somewhat unsettled confidence in the insecticide, some buyers believing that the bulk of the powder now on the market is made from these daisies, or is adulterated with powder made from them. This is incorrect, as according to the best information obtainable very little of the Hungarian flowers have reached this market, and as the supply is at present unreliable, there is not much probability of more coming during the balance of this season.

Irish moss of low grade is in full supply and offered at low prices but some particularly handsome stock is held at 11½@12c.

Lycopodium is very scarce both here and in London, and with a large consuming demand in prospect holders are very firm in their views, quoting 40@42c.

Quicksilver has again advanced in sympathy with advices from London, where speculative manipulations and a small stock are forcing the market upward. Holders here quote 56@58c as to quantity, the inside price being for large lots.

Sago is in active request at 3½@3¾c for East India pearl.

Sugar of milk is selling briskly at 17@18c for

SALOL.

The new remedy for Rheumatism and Rheumatic Affections, Diarrhœa, Dysentery, Typhoid Fever, etc. Manufactured by Dr. F. VON HEYDEN'S Successor at Radebeul-Dresden.

PHENACETINE-BAYER
The New Antipyretic.
(PARA-ACETPHENETIDINE)
$C_6H_4 \begin{matrix} O.C_2H_5 \\ NH\,(CO-CH_3) \end{matrix}$
Manufactured by the
Farbenfabriken vorm. Friedr. Bayer & Co.,
ELBERFELD.

This new antipyretic and antineuralgic is attracting considerable attention here and in Europe, and experiments so far made go to show that while it compares favorably with other antipyretics it is free from their deleterious effects.

SULFONAL—BAYER.
The New Hypnotic,
Manufactured by the
Farbenfabriken vorm. Friedr. Bayer & Co.,
ELBERFELD.

We beg to advise the trade that we are Sole Licensees and Sole Agents for the United States for the above Chemicals, and we will be pleased to furnish quotations on application.

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Quinine and Chemical Works
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MANUFACTURERS OF
QUININE, ALOIN
MORPHINE
SANTONINE. COCAINE.

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IMPORTED BAY RUM.
We offer this article of our own direct importation, made expressly for us from a standard sample, hence a uniformity in odor and general characteristics. Original puncheons and barrels. Proof never below 108°. Prices and Samples on application.

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Sulphate of Quinine,	Bromide of Potassium,	Hypophosphites,
Muriate of Quinine,	Nitrate of Silver,	Subnitrate of Bismuth,
Citrate of Iron and Quinine,	Iodide of Potassium,	Spirits of Nitre,
Sulphate of Cinchonine,	Sulphate of Morphine,	C. P. Acids,
Sulphate of Cinchonidine,	Acetate of Morphine,	Tannin,
Sulphate of Quinidine,	Muriate of Morphine,	Ressublimed Iodine,
Bromide of Ammonium,	Nitrate of Ammonia,	Ether.

C. F BOEHRINGER & SOEHNE,
MANUFACTURING CHEMISTS.
Mannheim, Germany, and 49 Cedar Street, New York
QUININE.

Quinidia,	Codeine,	Resin Jalap,
Cinchonidia,	Digitalin,	Salicin,
Cinchonia,	Ergotin,	Spartein,
Chinoidine,	Koussein,	Strophanthin,
Acetanilid,	Morphine,	Strophanthi Tinct.
Aconitia,	Papain,	Terpinhydrat,
Arbutin,	Pelletierin,	Terpinol,
Atropia,	Pilocarpin,	Urethan,
Caffein,	Physostigmin,	Veratrin,
Cocaine,		

IODOL
(TETR-IODIDE OF PYRROL),
The New Antiseptic. Replacing Iodoform.

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Vereinigte Fabriken chemisch-pharmaceutischer Producte
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Offer to the trade their strictly prime
QUININE
on spot and for future delivery, in quantities to suit at lowest market quotations.
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All kinds of Wax, Honey.
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" " Syrup.
Sugar Coloring, &c.
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122 Water St., N. Y.

OLEUM OVI, or, OIL of EGG
A Positive Cure for Piles.
Sold by CHAS. N. CRITTENTON, 115 Fulton St., New York, and SMITH, KLINE & CO., Philadelphia, Pa.
or sent to Jobbers address on receipt of $4.00 per doz. Correspondence Solicited.
Chas. W. Sitterly, Sole Proprietor, Box 14, Guilderland, N. Y.

F. E. McALLISTER,
Seed Merchant and Importer
No. 22 Dey St., New York.
Canary, Rape and Hemp Seed, Mocking Bird Food, Mixed Bird Seed in cases, Bird Gravel, &c.

Established 1836.
Croton Laboratory:
OFFICE, 26 CEDAR ST., N. Y.
J. B. Hendrickson
IMPORTER AND REFINER OF
Crude Saltpetre and Nitrate of Soda.
Best qualities always on hand at lowest cash price.

TYNE BICARBONATE OF SODA,
GUARANTEE OVER 96¾%.
Bicarbonate in 112 lb. Kegs at 3¼ cts. ₩ lb; in 400 lb barrels at 3¼ cts. ₩ lb.
FRENCH, RICHARDS & Co.
Philadelphia, Pa.

Bermuda Ochre.
Single Washed.
Double Washed,
Extra Floated
Fully equal to ROCHELLE.
BERMUDA OCHRE G&C
GRIDLEY & CO. Sole Agents of the BERMUDA OCHRE CO.,
87 Maiden Lane, New York

LIEBMAN & BUTLER.
IMPORTERS OF
BRIMSTONE,
58 Stone St., New York

JOHN J. THOMSEN,
51 W. Balto. and 52 & 53 German Sts.
BALTIMORE, MD.,
IMPORTER AND EXPORTER OF
DRUGS
AMERICAN INDIGENOUS
OILS, ROOTS, BARKS, HERBS
SPECIALTY.

powdered. We understand that tenders of deliveries from some late arrivals have been declined by the purchasers, as the quality was unsatisfactory, owing to damage done while the stock was in transit.

Civet has advanced to $4 50 being very scarce both here and abroad.

Grape sugar is weak and offers at 2¼@2⅝c for export. Glucose sympathizes.

Balsams.

The upward movement in balsam copaiba continues and prices are now up to 60c for Central American, 62c for Maranham, 64c for Para and 67½c for angostura. Supplies ore extremely light while the demand continues active. Other balsams are dull and unchanged.

Beans.

The reported freak in tonka beans was exaggerated by the report circulated a week ago, and it is positively asserted that no stock is procurable at the prices named then. The general quotations are $1 30@1 40 for Angosturas, 45c for Para and 80@90c for Surinams. As to the reported prospect of a large crop of Paras we are informed that nothing can be definitely foretold of future supplies, as the crop will not be due before October or November.

Barks.

Cascarilla bark is firm at 9@10c. There is said to be no stock of Buckthorn in first hands, and for the limited quantity outside holders have 8@12c is wanted. Sweet orange peel is very scarce and firmly held at 7@12c. Pomegranate bark of the root is now held at 20c, with very little to be had.

Essential Oils.

Anise oil is firmly held at $1.62½@1.65, with a good demand. Sales of 40 cases are reported on private terms. Copaiba oil has advanced in sympathy with the balsam, and is now quoted at 80c. Peppermint oil is dull but steady. Of H. G. H., a sale of 15 cases for export, is reported at 2.90. The packer wants $3 25, while the general quotation by second hands is $3. Sassafras oil is still advancing and is now quoted at 50@55c as to quantity. Supplies are coming in slowly as the low prices obtainable in the past did not warrant producers in going in to any extent this year, and as a consequence little oil is being distilled. Wintergreen oil is now quoted at $2, but some holders might still shade this.

Herbs and Leaves.

Business in this department has been of the quiet jobbing order though rather brisker than at this time a week ago. Tinnivelly senna is attracting more attention and as stocks decrease the market tends upward. Since we last wrote there have been sales of 10 bales at 15@18c and 5 bales at 18@20c, the quoted range being 9@22c as to quality. Red rose leaves have advanced 5c being now held at 85c@$1.

Roots.

There is more interest manifested in this department, but trading is still conducted almost exclusively on a small jobbing scale. Cascara sagrada is reported to be very scarce, and though we heard of a sale of 175 lbs, to close an invoice, at 14c there is little or nothing now obtainable below 18@20c. Gentian is higher, stocks both here and abroad being concentrated. Sales are making in a small way at 4½@5c. Virginia snakeroot being in very small supply is held at 20c in a jobbing way. Senega is also firmer, holders asking 32@33c, at which there are a few jobbing sales. It is reported that a movement is going on in Mexican sarsaparilla, but the particulars have not come to the surface. Ipecac has advanced owing to the extremely light stocks and higher prices in London. We quote $1 75@1 80 for whole, and $1 85 for powdered. Jamaica ginger is scarce and tending upward, under a brisk jobbing demand and no arrivals. We quote unbleached at 12@13c and bleached at 14½@15.

Seeds.

Italian anise seed of prime quality is held at 11@12c, but there is cheaper stock to be had. Star anise has advanced to 23c. Caraway seed is now held at 6¼@6½c for prime, being very scarce. The new crop is said to be much inferior in quality to the last, owing to prolonged rains in Holland, but the quantity is about the same. Bleached English coriander seed is tending upward, and is now held at 4½@4¾c. Canary seed is dull and depressed. Foenugreek seed is higher and is now held at 2⅛@2¼c, though early in the week heard of sales of five tons at 2c and five tons at 2¼c. The stock in first hands is said to be practically exhausted. Cables from the other side are to the effect that supplies of all foreign seeds are likely to be short this year owing to damaged crops.

Shellac.

The market for shellac continues to improve and the indications point to much higher prices in the near future. The shipments from Calcutta to the United States during July were only 400 cs, against 1,300 for the corresponding month last year, and the shipments to the other markets have decreased proportionately. Spot stocks both here and in London have diminished considerably indicating a healthy state of the consuming trade. Calcutta advices just to hand are to the effect that manufacturers of D. C. refuse to entertain prices on a parity with the current quotations here, the cost to lay that mark down now being, it is reported, close to 20c. There has been a good business done, consumers appearing to want stock, but the bulk of the sales have been of a speculative character. The reported transactions include 200 cases D. C., 100 cases S. S., 300 cases T. N. quality and about 200 cases other marks. The spot market closes a shade higher, the general quotations being 18½@19c for D. C., 15c for V. S. O., 14@14½c for Octagon Band Diamond I, 13½c for S. S., 12@12½c for T. N., and 10c for garnet.

Spices.

The market still wears a quiet appearance, business being entirely of a jobbing character. Prime amboyna cloves are held at 24c, but Singapore are obtainable at 14c, this wide disparity in price being due it is said to manipulations by the native shippers at the source of supply. New arrivals of cassia buds have sold at 10½@11c.

Mr. F. F. McClintock of the New York Shellac Company, who has been confined to his home for six weeks by a severe attack of inflammatory rheumatism, is now convalescent and is able to get to his office again.

Messrs. Van Koughnet Bros. have removed from 15 Jay Street to more comodious quarters at 141 Reade street.

The Quicksilver Trade.

Both receipts and exports have been larger for the first half of 1888 than for that of 1887. The receipts for the first half of the two years thus compare:

Charras Essential Oils.

CLAYTON ROCKHILL,
COMMISSION MERCHANT,
30 PLATT STREET, NEW YORK
SOLE AGENT IN THE UNITED STATES FOR
CHARRAS & CO., Nyons Drome, France

JOHN SOFIO & CO.'S Essential S Oils.

MANUFACTURERS OF
Lemon, Bergamot AND Orange.
The quality is uniform and guaranteed absolutely Pure. Samples and Quotations furnished on application to
THOMAS LEEMING & CO., 18 College Place, New York.
Sole Agents for United States and Canada.

Crude, Powdered, Ground AND Crushed
DRUGS
R. HILLIER'S SON COMPANY,
IMPORTERS and DRUG MILLERS,
46 CEDAR STREET, NEW YORK.

MEXICAN VANILLA.
TYLER & FINCH,
54 Cedar St., NEW YORK,
Offer choice selections from the best stocks of the best curers in Mexico, including every quality from the cheapest to the finest of the crop.

Packages of any size made up for safe shipment to any part of the world.

Pyrethrum Cinerariæfolium.
B. W. B. & CO.
Powdered,
Dalmatian Insect Flowers.
Pure and Ground from prime Flowers. The above brand has been in the market since 1853. Its excellent quality has been maintained since its introduction and at present it is recognized by the trade as unexcelled. Besides its superior quality its fineness recommends it, being ground more finely than others.
We offer only one kind pure, uncolored.
Sample and quotations on application.
CODMAN & HALL,
125 Milk Street, BOSTON.
valueless unless

Vanilla Beans!

we are accused of "bearing" the market in order to reduce prices in Mexico. If this be so, our warehouse should be the place to secure bargains.

DODGE & OLCOTT,
Curers. Importers. First Hands.
86 & 88 William Street, NEW YORK.

GUM SHELLAC
ALL GRADES.
HOWE & FRENCH, - - BOSTON.

PEIRSON & PERKINS, NEWARK, WAYNE CO., N. Y., U. S. A.
Manufacturers and Distillers of
Pure Essential Oils, Peppermint, Spearmint, Tanzy and Wormwood.
Awarded GOLD MEDALS at Amsterdam and New Orleans.
Correspondence Solicited for Domestic and Export Trade.

MEXICAN VANILLA BEANS
High Gravity Essential Oils of the Finest Quality.
CHARLES E. HIRES, RECEIVER and IMPORTER,
117 & 119 Arch Street,
PHILADELPHIA, U. S. A.

SANTI de PASQUALE & FIGLI's
Celebrated
ESSENTIAL OILS
LEMON, BERGAMOT and ORANGE.
FOR SALE BY ALL THE DEALERS.

SEEDS
THE ALBERT DICKINSON CO.
Dealers in Timothy, Clover, Hungarian, Millet, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Pop Corn, &c.
Specialties: FLAX SEED and BIRD SEEDS.
Warehouses: 115, 117 & 119 Kinzie St., OFFICES, 115 KINZIE ST.; 104, 106, 108 & 110 Michigan St., CHICAGO, ILL.

STRICTLY PURE PEPSIN.

Our manufacture of Pepsin represents in the most concentrated form, the Digestive Principle contained in the stomach of the pig. For Strength and Purity, we believe it to be unequalled by any Pepsin manufactured, either scale, crystallized or in amorphous powder. It is free from mucus, and has a minimum of disagreeable odor and taste.

It has nearly ten times the strength of Saccharated Pepsin as ordinarily dispensed. One grain of it, added to a mixture of 75 minims of Muriatic Acid, with ten ounces of water, and maintained at a temperature of 104° to 105° Fahr., will in from four to six hours dissolve 1000 grains of Coagulated Albumen.

We especially prepare this Pepsin for manufacturers of preparations containing this article, and can supply it at a much less cost than it can be prepared on a small scale.

We will give special quotations in bulk, and will take pleasure in sending samples to any one who may wish to test its comparative strength and therapeutic value.

FULLER & ROTHERMEL,

MANUFACTURING CHEMISTS,

Union Stock Yards, Chicago, Ill.

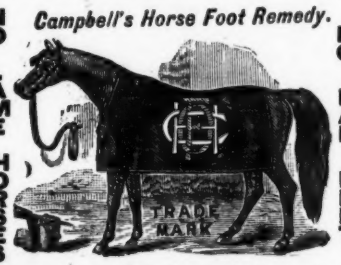
Eastern Office, 218 North 2nd Street, PHILADELPHIA, PA.

CORRESPONDENCE SOLICITED. SAMPLES AND PRICES UPON APPLICATION.

CAMPBELL'S HORSE FOOT REMEDY

NO LAME HORSES

Campbell's Horse Foot Remedy.



NO BAD FEET

GUARANTEED TO DO AS REPRESENTED OR MONEY REFUNDED.

No Stable should be without a Can of

Campbell's Horse Foot Remedy.

It is a sure cure for all ailments of the feet caused by driving on hard roads, and speedily overcomes the pernicious effects of the dry summer heat, and the mud and slush of winter. It will **Prevent** as well as **Cure** Chippiness or Shelliness in Brittle Feet. Will cure Corns, Quarter Cracks and Split Hoof by promoting growth of the foot rapidly. Will make feet SOFT but TOUGH, enabling the nails to hold better without breaking. Dry, Contracted or Sore Feet are relieved immediately, and it removes all fever in Foundered Feet. It is particularly beneficial to the feet of horses where shoeing is needed often, as it grows plenty of new foot for the blacksmith to work on. For healing Cuts, Wounds, Galls, Soreness over the Kidneys and Swollen Glands in cases of Founder, or as a Liniment this Remedy can not be excelled. It is guaranteed to cure any case of Scratches in a week's time. Thrush or Foot Rot cured in three applications. None genuine without signature of

Jas. B. Campbell

JAS. B. CAMPBELL & CO., Proprietors and Manufacturers, **126 Fifth Ave., Chicago, Ills.**

Correspondence Solicited.

H. TROMMSDORFF.

Erfurt Chemical Works, Erfurt, Germany.

OFFER TO THE TRADE A FULL LINE OF

Scientific, Pharmaceutical, Technical Preparations & Chemicals

THROUGH THEIR AGENTS

EIMER & AMEND.

NEW YORK.

CHEMISTS' SUPPLIES

Strictly Chemically Pure Acids,
Strictly Chemically Pure Chemicals.
Superior Bohemian Glassware,
Superior Filterpapers,
Superior German Porcelains,
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Perfect Balances and Weights,
Perfect Acid-proof Stoneware,
Platinum Vessels and Salts,
Selected Drugs, Chemicals and Pharmaceutical Preparations
All Testing Appliances and Reagents

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205, 207, 209 & 211 Third Avenue, NEW YORK.

SOLE AGENTS FOR

H. Trommsdorff's Chemicals,
Joseph Kavalier's Bohemian Glass
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Dr. C. Scheibler's Polariscopes,
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PERFECT POSTAL PACKAGES

PERFECT POSTAL PACKAGES

Improved QUALITY, Reduced COST.

Lightest, Strongest, Cheapest.

ABSOLUTELY SAFE FOR MAILING LIQUIDS, OILS, SYRUPS AND OTHER SAMPLES.

Approved by the U. S. P. O. Dep't.

POST OFFICE DEPARTMENT.

Office of the General Superintendent of Railway Mail Service.

WASHINGTON, D. C., December 12, 1887.

POSTAL PACKAGE CO., Baltimore, Md.

SIRS—I have *carefully* examined your Package, &c. This Package conforms in ALL RESPECTS to the requirements of the Department, and is suitable for the transmission of Liquids in the mails.

Very respectfully, T. E. NASH, *General Sup't.*

Made in any Size. ☞ **SEND FOR SAMPLE AND PRICE LIST.** ☜

Also Screw Top Tin Mailing Cases for Fertilizers, Flour, Grain, etc

Self Sealing Screw Top Cans.

NO EXTRA COST

For

Solder or Fuel,

AS THEY

Do Not Require

TOOL OR KNIFE

EASILY OPENED AND CLOSED.

Contents Preserved Until All is Removed.

Can be used any number of times. Top or Can not injured in opening.

Particularly Adapted For

Mixed Paints,
White Lead,
Varnish,
Printers' Ink,
Colors.

Condensed Milk,
Lard,
Vegetables
Fruit,
Spices.

ABSOLUTELY OIL AND AIR TIGHT.

MADE IN ALL LEADING SIZES.

Sole Manufacturers and Patentees:

POSTAL PACKAGE CO., No. 34 S. PACA ST., BALTIMORE, MD.

	Flasks.
1888	14,143
1887	11,636

Here is an increase of about 22 per cent. showing a much better market than during the corresponding period in 1887. The market opened at $48@50, caused by the high prices in London. Before the close of the month it dropped to $45@47. Early in February it dropped to $42 net, and by the close of the month to $38 50@41, and by the close of March to $38@39. May saw the market down to $37 50@38, at which the half year closed. Since the close of the half year it has dropped to $37@38.

Exports for the first six months of the past two years thus compare:

	Flasks.	Value.
Mexico	3,638	$145,038
New York	2,320	92,640
China	1,310	51,900
Central America	253	9,900
New Zealand	176	7,427
Australia	25	990
British Columbia	4	160
Total	7,726	$308,055
Same in 1887	5,877	227,769

Except to British Columbia there is a general increase in exports all round. The shipments to China were almost phenomenal, although the Celestial Empire was once our best market. Exports by rail were very light, only 70 flasks, valued at $2,720, against 2,890 flasks, valued at $112,080 for the same time in 1887. Total exports by land and sea compare as follows:

	Flasks.	Value.
Six months, 1888	7,706	$310,775
Six months, 1887	8,767	339,849

—San Francisco *Journal of Commerce.*

The Drug Trade of Great Britain.

Considering the number and variety of articles comprised in the drug business says the London *Chemist and Druggist*, it will probably be a surprise to many people to hear that the whole of our foreign trade in drugs proper, including all crude drugs, quicksilver, opium, cinchona, gum arabic, licorice, wax, and essential oils, and all pharmaceutical preparations, embraces scarcely 1 per cent. of the total volume of the nation's trade; while, even if to this inner circle we add the more or less connected branches of trade, such as drysalteries, heavy chemicals, spices, dyestuffs, and fixed oils, the total only amounts to 5 per cent. of our entire imports, and 4½ per cent of our exports. This fact, however, rather shows the vastness of the whole of our foreign trade than the smallness of our drug business, for it is practically certain that no other country in the world has so large a drug trade as our own. The United States, probably, would rank next to ourselves, but even they are a good way behind this country. The statistics which we publish in another part of this issue throw an interesting light on the fluctuations of our shipments of purely pharmaceutical articles and chemicals to our principal foreign and colonial customers. These statistics are collected from official sources, and though necessarily incomplete (for the custom house authorities are somewhat too fond of grouping vast quantities of goods under the denomination of "miscellaneous articles"), they give the best available survey of this branch of business. The figures in many instances afford additional evidence of the tendency of our export trade to develop in an extra-European direction rather than with Continental countries. At the same time it is a fact worth recording that last year our exports of drugs and pharmaceutical preparations to Germany suddenly increased to about double the average, while France also bought more than 20 per cent. above her average share. But whether this sudden expansion of trade is ephemeral or due to such causes as, for instance, the growing popularity of British patent medicines on the Continent, remains a

ROGERS & PYATT,
80 Maiden Lane, New York.
Manufacturers of Bleached Shellac and Spirit Varnishes.

This cut will be mailed to any dealer, who will use it in his paper space, to attract to same.

One agent wanted in every town.

Write for special offer. Liberal Adv't matter.

HOP REMEDIES CO.,
NEW LONDON, CONN.

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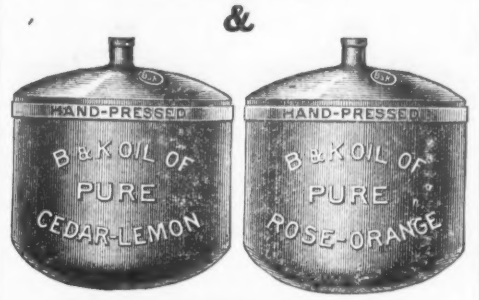

Mexican VANILLA BEANS. Bourbon VANILLA BEANS.

BRANDT & KIENZLER, 160 Franklin St., N. Y

OLDEST HOUSE IN THE BUSINESS IN THE UNITED STATES. ESTABLISHED 1836.

WILLIAM LANG & SON,
MANUFACTURERS OF
ROCK CANDY,
ROCK CANDY SYRUPS,
Burnt Sugar Coloring.
207 and 209 Bainbridge St., Philadelphia.
Branch House: 28 and 30 West Broadway, NEW YORK.

BOSTON MAILING BOX COMPANY.

The ONLY Wooden Mailing Case in the Market approved by the P. O. Department.

POST OFFICE DEPARTMENT OF THE GENERAL SUPERINTENDENT OF RAILWAY MAIL SERVICE.
WASHINGTON, D. C., May 10, 1888.

Boston Mailing Box Co., Boston, Mass.

GENTLEMEN:—Your boxes meet all the requirements for transportation of liquids through the mails. They have been thoroughly tested and are entirely satisfactory.

Very respectfully,
T. E. NASH, Gen'l. Supt.

All Sizes in Stock. Prices range from 1c to 4c each.

BOSTON MAILING BOX COMPANY,
35 & 38 Central Whf., Boston.

1833. 1888.
CHAS. W. LOGAN'S
CHOICE FLAVORING EXTRACTS.
VANILLA, LEMON, &c.
Cheap because Pure and Strong.
PRICES AND SAMPLES ON APPLICATION.
E. & S. FREY, Baltimore, U. S. A.

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BLEACHERS AND REFINERS
OF THE "W. H. B." BRAND OF
BEESWAX.
IMPORTERS OF
Carnauba or Brazil Wax, Refined Paraffine Wax, and CERESINE OR MINERAL WAX.
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ESSENTIAL OILS
MUSK, AMBERGRIS.
Raw Materials for Perfumers and Soap Makers.
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Importers and Sole American Agents for G. De Laire & Co., Paris, France
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NO. 46 SOUTH WATER STREET,
PHILADELPHIA.

THOM'S & CO.
Manufacturers of
ROCK CANDY, ROCK CANDY SYRUP,
COLORING ETC.
813 S. Broadway, Baltimore, Md.
ALL GOODS GUARANTEED.

WHOLESALE PRICES CURRENT.

☞ Our Quotations are those of Importers and Manufacturers, for original packages and large lots. For broken lots higher prices are asked.

Oils, Etc.

Vegetable Oils.

Linseed Domestic Raw, in bbls, ℔ gal	.53	@54
Boiled, in bbls	—	@56
Calcutta, Raw, in bbls	.53	@54
Western on spot	.46	@48
Rapeseed, in bbls	.54	@55
Cottonseed, Crude Prime	.41	@42
Crude, off quality	.38	@39
Yellow Summer Prime	.49	@50
Yellow Summer, off qual.	.46	@47
Yellow Summer, cooking	—	@—
White Summer	.49	@50
Yellow Winter	—	@55
White Winter	—	@56
Soap stock		1¾@1⅞
Olive, Sicily	.68	@72
Spanish	.68	@71
Soap Stock	—	@ 5¼
Palm, prime ℔ lb		4¾@ 5
Off quality		4½@ 4¾
Cocoanut, Domestic	—	@ 5
Ceylon		5⅜@ 5½
Cochin		6¼@ 6¼
Castor, No. 2	—	@—
No. 3		11½@12
Rosin, first run ℔ gal.	—	@ 9
Second run	—	@12
Third run	—	@15
Deodorized	—	@18

Animal and Fish Oils.

Whale, natural winter ℔ gal.	.40	@41
Bleached winter	.42	@43
extra bleached winter	.44	@45
Bleached spring	.40	@41
Sperm, natural winter	.67	@70
Bleached winter	.72	@74
Natural spring	.61	@64
Bleached spring	.66	@68
Sea elephant, bleached winter	.55	@56
Unbleached winter	.50	@51
Lard, prime city	.64	@65
prime, western	.64	@65
Extra No. 1	.52	@54
No. 1	.40	@43
No. 2	.33	@35
Menhaden, prime crude	.25	@26
Prime southern	.24	@25
Brown strained	.28	@29
Light strained	.29	@30
Extra bleached white	.35	@36
Bleached winter	.31	@32
Bank	.28	@29
Straits	.29	@30
Oleo	.8	@ 9½
Cod, Domestic, prime	.31	@33
Newfoundland	—	@—
Black Fish, Crude	—	@—
Natural	—	@—
Bleached Winter	—	@—
Degras, English		2¼@ 2½
French	—	@—
Tallow, Prime	—	@46
Neatsfoot, Prime	.60	@75
No. 1	.55	@60
No. 2	.45	@50
Saponified Red	.34	@37
Elaine Red	.33	@36

Mineral Oils.

Paraffine Gas Oil ℔ gal		5½@ 6
22 gravity	18	@19
23½@24 gravity		11½@12
25 gravity		10½@11
28 gravity		8½@ 9
Red Paraffine, 21@21½ gravity	.16	@17
22½@23 gravity	.13	@14
High viscosity	.18	@—
Neutral filtered, 32 grav., bloomless	.18	@20
extra cold test	.22	@40
34 gravity, bloomless	.16	@18
37 gravity, bloomless	.15	@16
32 gravity, wool grade	.11	@12
West Virginia, natural, 29 gravity	.17	@18
Franklin, natural, 32 gravity	—	@—
Smith's Ferry, 33@34 gravity		7½@ 8
Black reduced, 29 gravity, 25@30 c. t.	.8	@ 9
29 gravity, 15 cold test		8½@ 9½
29 gravity, zero	.10	@11
Summer		6½@ 7
Cylinder, light filtered	.15	@20
dark filtered	.14	@21
extra cold test	—	@—
dark steam refined	.10	@18

Oil Cake.

Calcutta cake, city ℔ ton		—@—
City domestic	.23	50@23 75
Western, in bags	.23	50@—
Cottonseed cake at Memphis	.18	00@18 50
do do New Orleans		—@21 00

Oil Meal.

State domestic meal ℔ ton	24	00@ —
Cottonseed meal at Memphis	16	00@16 50
do do New Orleans	21	25@ —

Wax Candles, Lard, Tallow, Etc.

Paraffine wax, crude, 124@126 m p ℔ lb		4½@ 4¾
128@130 m. p		4¾@ 5
refined 136 m. p		9 @ 9½
Candles, Paraffine, 4s and 6s	.10	@12
12s		10½@12½
Adamantine, 6s, 16 oz	—	@ 9
14 oz	—	@ 8
12 oz	—	@ 7
12s, 16 oz	—	@10
14 oz	—	@ 9
12 oz	—	@ 8
Patent sperm, 4s and 6s	.43	@44
Sperm, 4s and 6s	.36	@37
Stearic acid	.11	@13
Spermaceti	.32	@33
Lard	.8 40@9 60	
Stearine	.9½@11	
Tallow	.4½@ 4¾	

Naval Stores.

Sp. tur'tine	36¼@36¾	I	1 40@—
St'd rosin	—@1 02½	K	1 50@—
G'd st'd	1 07½@—	M	1 57½@—
E	1 15@1 17½	N	1 80 @—
F	1 22½@1 25	W G	2 35 @—
G	1 27½@1 30	W W	2 90 @—
H	1 32½@1 35		

Paints, Varnishes, Etc

White Lead, Zinc, Etc.

American Dry White Lead ℔ lb	5	@5½
Pure White Lead, in oil	5½@5½	
English White Lead, in oil	8½@8¾	
Zinc White, Paris, G S, 50 bbls	less 4	℔ ct
G S, 25 bbls	2	℔ ct
G S, 10 bbls	1	℔ ct
R S, 50 bbls	4	℔ ct
R S, 25 bbls	2	℔ ct
R S, 10 bbls	1	℔ ct
Antwerp R S, 50 bbls	4	℔ ct
R S, 25 bbls	2	℔ ct
R S, 10 bbls	1	℔ ct
V M Co., grinding in poppy oil, Green Seal	10½@10⅝	
Grinding in poppy oil, Red Seal	8¾@ 9¼	
French in Varnish	.16	@20
American Extra Dry	4¼@ 4½	
Off color	4	@ 4½
In oil	6¼@6¾	
In varnish	.14	@18¾
L. Z. O. German zinc	5¾@ 5	
China white	10½@12	
Flake white	10½@12	
Cremnitz white	.15	@20

Dry Colors.

REDS.

Carmine No. 40 ℔ lb	3 15@	3 50
Crocus martus, imported	1½@	2½
Standard American	1½@	2½
Colcothar	3½@	6
Indian red, American	3½@	6½
Standard American	2 @	3
English	5½@	7
Tuscan red, English	9¾@	11
Turkey red, English	9½@	14
Litharge, English flake	9 @	9½
American powdered	6 @	6½
Red lead, English	8½@	9
American	6¼@	6½
Orange mineral, English	8½@	
French	8¾@	9¾
German	8½@	9
American	8 @	8½
Rose pink, English	9 @	9½
American	8 @	—
Vermilion, imported English	82 @	85
Am. quicksilver, bulk	60 @	—
Am. quicksilver, bags	61 @	—
Chinese	— @	77½
Trieste	72 @	77
American	10½@	11
Artificial	8 @	25
Venetian red, Cookson's	1 40	@1 45
H. R.Co's Diam'd MI.	45	@1 50
Diam'd H.I	10	@1 25
F V A	1 05	@1 20
L L & Co Diamond H.I	10	@1 20
H B.I	10	@1 20
Bell brand	—	@1 45
B O W	—	@1 30
V V R	—	@1 60
Crown	1 40	@1 50
Lion	1 20	@1 25
Anchor H	1 10	@1 30
American	1 00	@1 30
Cutter	1 30	@1 35

YELLOWS.

Chrome yellow	.10 @	25
Ocher, Rochelle	1 35	@1 50
Washed Dutch	5 @	—
Washed French	2 @	—
Washed Nat Oxford, Lump	6¼@	6¾
Washed Nat Oxford, Powd'r	7 @	7½
Golden	3¾@	4
Domestic	¾@	1¼
Domestic, for O C & W P	¾@	1

GREENS.

Chrome, Chemically pure	.22	@26
Extra	.12	@13
Super	.9	@11½
Common	—	@ 8
Paris, Pure	—	@18¾
In pulp	.11	@12
French Verdigris	.40	@42

BLUES.

Chinese Blue	.45	@50
Prussian Blue	.30	@35
Soluble Blue	.45	@55
Ultramarine Blue	.7	@25
Celestial Blue	5½@	8
Blue verditer	.25	@30
refiners'	.60	@70

BROWNS.

Sienna, Italian, burnt & powdered	6 @	6½
burnt lumps	3 @	3½
raw powdered	6 @	7
raw lumps	3½@	4
American, burnt & powdered	1½@	1¾
raw	1½@	1¾
Umber, Turkey, burnt and powdered	3½@	4
burnt lumps	2¾@	3
raw and powdered	3¼@	4
raw lumps	1½@	2¾
American, burnt	1¼@	1½
raw	1¼@	1½
Vandyke brown, English	6 @	8
American	3 @	3¾
Spanish brown	¾@	1

Miscellaneous.

Barytes, prime white ℔ ton	16 00	@18 00
foreign floated	19 00	@21 00
domestic floated P &K	30 00	@32 00
off color	12 50	@14 00
Chalk	—	@ 4 00
kiln dried ℔ 100 lbs	40	@ —
air dried	30	@ 35
China clay ℔ ton	13 00	@18 50
Cobalt oxide	2 50	@ 2 90
Feldspar ℔ ton	15 00	@ —
Silex	14 00	@25 00
Whiting, commercial ℔ 100 lbs	45	@ 55
gilders'	60	@ 65
Paris white, English cliffstone	1 05	@ 1 15
American	65	@ 80
French talc	1¼@	1½
terra alba	75	@ —
English terra alba	75	@ 80
Blanc fix ℔ lb	2½@	3
Dentists' plaster ℔ bbl	1 35	@ 1 55
Calcined plaster ℔ bbl	1 25	@ 1 50
Marble dust ℔ bbl	90	@ 1 00
Pumice stone, original cks. ℔ lb	1¾@	2
selected lumps in bbls	3¼@	—
powdered pure in bbls	2¼@	2½
Rotten stone original cks	4½@	5½
selected lumps	6 @	10
powdered, in bbls	3½@	3½
Rubbing stone	5 @	7
Bronze powder	— @	—
Brocades	45 @	1 00
Smalt, German blue	15 @	—
super black	— @	—
Putty bulk	1¼@	2½
bladders	2 @	2½
tins	— @	2½

Glues.

Extra white ℔ lb	.17	@20
Medium white	.13	@15
Cabinet	.12	@14
Low grade	.8	@10
Foot stock, white	9¼@13½	
brown	4 @	8
Irish	12½@14½	
French	9½@22½	
English	10½@15	

Metallic Paints.

Brown ℔ ton	$27 50@32	50
Red	27 50@32	50
Yellow	27 50@32	50

Colors in Oil.

Black conch, Japan ℔ lb	.18½@20	
in oil	.12 @13	
Drop black	8½@14½	
Ivory black	8½@14½	
Lamp black	.12 @20	
Chinese blue	.35 @40	
Prussian blue	.30 @45	
Ultramarine blue	.12 @18	
Burnt sienna	7 @14	
Raw sienna	7 @14	
Burnt umber	7 @11	
Raw umber	7 @11	
Vandyke brown	@12½	
Chrome green	8 @14	
Paris green	.16 @18½	
English drop black	12½@14	
American drop black	7½@10	
Frankfort drop black	.25 @30	
Lampblack, prime	.27½@33	
medium	.19½@23	
2d quality	.13 @19	
low grade	6½@10	
Naphtha, black	.60 @—	
Fine calcined velvet black	.16 @25	
Medium calcined velvet black	.12 @15	

Varnish Gums.

Copal, Sierra Leone, cleaned	.35	@40
Zanzibar, bold white	.72	@75
medium white	.62	@65
bean and pea	.35	@45
Manila, pale	.17	@20
bright amber	.13	@15
standard	.10	@11½
Damar, Batavia	.22	@23
Kauri, standard	.18	@20
No. 2	.14	@16
hard scraped	—	@22
light hard scraped	—	@37
picture quality	.65	@70
pale and fine selected	.42	@65
Sandrac	17½@20	
Asphaltum, Cuban, prime	5½@	6¼
sandy	4½@	5½
Egyptian	8 @	9

Glass.

PLATE AND WINDOW.

FRENCH SINGLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
24x36 to 24x36	17 75	16 20	14 75	....
26x28 to 24x36	26 00	25 00	23 00	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	24 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
36x60 to 40x60	26 50	24 50	23 00	....

FRENCH DOUBLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$13 00	$12 50	$12 00	$11 50
11x14 to 16x24	16 00	15 00	14 50	....
18x22 to 20x30	20 50	19 50	18 50	....
15x36 to 24x30	22 00	20 75	19 50	....
26x28 to 24x36	25 00	23 00	21 50	....
26x46 to 30x50	28 00	26 50	24 50	....
30x52 to 30x54	30 00	28 00	26 00	....
30x56 to 31x56	31 00	30 00	28 00	....
34x58 to 34x60	32 50	31 00	29 00	....
36x60 to 40x60	36 00	33 50	32 00	....

Discounts:—70 10 & 5 for S & D.

AMERICAN SINGLE.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
26x28 to 24x36	17 75	16 25	14 75	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
36x60 to 40x60	26 50	24 50	23 00	....

AMERICAN DOUBLE.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x55	$13 00	$12 50	$11 80	$10 00
11x14 to 16x24	16 00	15 00	13 50	12 00
18x22 to 20x30	20 50	19 50	18 00	....
15x36 to 24x30	22 00	20 75	18 75	....
26x28 to 24x36	25 00	23 00	21 00	....
26x36 to 26x44	26 00	25 00	22 50	....
20x46 to 30x50	28 00	26 50	23 75	....
30x52 to 30x54	30 00	28 00	25 25	....
30x56 to 34x56	31 00	30 00	27 00	....
34x58 to 34x60	32 50	31 00	28 00	....
36x60 to 40x60	36 00	33 50	30 00	....

Discounts:—75&5@75&10.

Drugs.

Opium.

Opium, in bond ℔. lb	1 75	@1 85
duty paid (cases)	2 75	@2 80
as wanted	2 80	@2 85
powdered	3 95	@4 00
Morphine	2 10	@2 40
foreign	2 00	@2 25

Quinine.

Quinine, American ℔ oz.	43	@ 50
English	—	@ —
French	—	@ —
German	34	@ 45
Cinchonidia, American	5	@ 5¼
foreign	4	@ 5
Quinidia, German	16	@ 20

Miscellaneous.

Acid benzoic, German ℔ lb	42½@	55
English ℔ oz.	11½@	13
boracic purified ℔ lb	20	@ 25
refined	15	@ 17
flaky	14	@ 16
carbolic, pure crystals	30	@ 40
Acid carbolic commercial	25	@ 30
citric, domestic	50	@ —
foreign	50	@ 51
salicylic, bulk & boxes	1 56	@ 1 62
Alcohol, 94 p ct, free per gal.	2 20	@ 2 22
refi'd wood, 95 p ct	—	@ 1 10
92 p ct	—	@ 1 05
dia methyl, 98 p ct	1 25	@ 1 30
Inodorine, 97-99 p ct	1 50	@ 1 60
Cologne spirits, 188 p t	2 32	@ 2
Ambergris gray	22 00	@30 00
black	9 00	@12 00
Ammonia carb, foreign	7½@	8
domestic	8 @	8½
Bay rum imp, bulk	1 95	@ 2 00
Barbadoes tar	38 @	40
Borax, refined city, bbls ℔ lb	8½@	8½
Cal., bbls	8½@	8¾
concentrated	7¾@	7¾
powdered	8½@	9
Bromine	37 @	38
Burgundy pitch	2¾@	3
Cantharides, Russian	1 32½@	1 37½
Chinese	38 @	40
Calomel, domestic	65 @	67
English	1 05 @	1 10
Castile soap, white	10¾@	10¾
green, pure	6½@6¾	
mottled ordinary	4½@	4¾
pure	5½@	6
Chian turpentine ℔ oz.	45 @	—
Chloroform	40 @	45
Colocynth apples, Trieste ℔ lb	46 @	50
pressed	— @	—
Spanish	24 @	27
Cacao butter	32 @	35
Chloral hydrate, crystals	1 55 @	—
plates	1 25 @	—
Corrosive sublimate	57 @	59
Cuttlefish bone, Trieste	21½@	22
Dragon's blood mass	20 @	22
reed	42 @	45
Ergot, Spanish	25 @	27
German	20 @	22
Gelatine, English	50 @	60
French	30 @	50
American	85 @	—
Glucose	2¾@	3½
Grape sugar	2¼@	3
Glycerine, German, dms	16½@	18
H. L. & Co., bbls & cs	16½@	18
W. J. M. G., bbls & cs	16½@	18
A. G. Co. C. P., bbls & cs	16½@	18
No. 1, pure white	15½@	17
M.W & Co. C. P., bbls & cans	16½@	18
P. W., bbls & cs	15½@	17
C. G. Co., bbls & cs	16½@	18
M. & R., bbls & cs	16½@	18
Glycerine, crude	11½@	12
Guarana, whole	1 10 @	1 15
Powdered	1 20 @	1 25
Iceland moss	4½@	
Indian hemp (Canabis In)	7 @	12
Insect powder	47½@	55
B. W. B	— @	55
Irish moss	5 @	10
Isinglass, Russian	3 50 @	3 75
American ordinary	70 @	75
prime	90 @	1 50
Iodine, re-sublimed	3 50 @	—
Licorice Corigliana	29 @	—
Guzzolini	26 @	—
Guis Grasso	24 @	26
"P. & S."	28 @	29
Domestic	20 @	—
Paste	13 @	—
Lupulin, American ℔ lb	70 @	—
German	50 @	—
Lycopodium, prime	40 @	42
Manna, large flake	70 @	72½
Small flake	35 @	37½
Sorts	30 @	35
Menthol	1 50 @	2 00
Musk, true grain ℔ oz	14 00 @	35 00
Tonquin pods	9 00 @	28 00
Canton grains	20 @	1 00
Nitrate barium ℔ lb	8 @	8¼
Strontia ℔ lb	9½@	10
Nux vomica, pockets ℔ lb	3½@	3¾
Oil, almond, sweet	20 @	37
Myrbane, American	16 @	18
English	16 @	18
German	— @	—
Sesame ℔ bbl	70 @	75
Castor, city, bbls & cases	14 @	15
Cod liver Norwegian ℔ bbl	22 50 @	28 00
Newf'land ℔ gal.	65 @	70
Phosphorus ℔ lb	70 @	75
Precip, red	75 @	77
White	80 @	82
Precipitated chalk, Eng. bk	5 @	—
bbls	7 @	—
Potassium, bromide, bulk	34 @	—
glass	42 @	43
Iodide, bulk	2 70 @	2 75
glass	2 78 @	2 85
Quicksilver	56 @	58
Sago, pearl	3½@	3¾
Flour	3½@	4
Sugar of milk cob	16½@	17
Powdered	17 @	18
Sulphur, roll	— @	1¾
Flour	— @	2
Salicine	2 20 @	2 25
Tamarinds ℔ kg	2 75 @	3 00
Venice turpentine ℔ lb	18 @	20
Wax, brown southern	26 @	27
State	25 @	26
Brazil	10½@	14
White, pure	40 @	45
Japan	11¾@	12
Carnauba	10 @	16
Ceresin	10½@	11

Balsams.

Copaiba, Angostura ℔ lb	—	@67½
Para	—	@64
Central	—	@60
Fir, Canada ℔ gal	3 65	@3 70
Oregon	1 10	@1 20
Peru ℔ lb	1 02½@	1 07½
Tolu	90	@ 95

Barks.

Angostura	₱ lb	18	@ 20
Bayberry		7	@ 8
Buckthorn		8	@ 12
Cascarilla		9	@ 10
Canella		12	@ 12½
Cinchona, red		20	@ 1 45
yellow		12	@ 1 25
Coto		60	@ 35
Elm, common		9	@ 10
selected		12	@ 14
Loxa		30	@ 32
Oak, white		3½	@ 4
red		3½	@ 4
Orange peel, West Indian		4	@ 6
Malaga, prime		7	@ 10
Curacoa		7½	@ 15
Prickly ash		10	@ 12
Pomegranate (of root)		—	@ 20
Quebracho		12	@ 15
Sassafras		8	@ 8½
Simaruba		14	@ 20
Soap, whole		5	@ 6
crushed		6½	@ 6¾

Beans.

anilla, Mexican	₱ lb	2 50	@ 9 00
Bourbon		2 50	@ 8 00
Tonka, Angostura		1 30	@ 1 40
Surinams		80	@ 90
Para		—	@ 45
Calabar		22	@ 25
St. Ignatius		50	@ 55

Berries.

Cubeb	₱ lb	1 50	@ 1 75
Juniper		4½	@ 5
Fish (Cocculus Ind)		4	@ 4½
Laurel		5	@ —
Prickly ash		20	@ —

Essential Oils.

Anise	₱ lb	1 62½	@ 1 65
Almond (bitter)		2 50	@ 6 75
Bay, ₱ bottle of 2½ ozs		6 00	@ 6 50
Bay oil, ₱ lb		3 62½	@ 4 73
Bergamot		2 50	@ 2 70
Black pepper		65	@ 5 50
Cajeput		65	@ 70
Camphor		7½	@ 11
Caraway, seed		1 05	@ 1 50
chaff		40	@ 52½
Cassia		72½	@ 75
Citronella		33	@ 35
Clove		1 30	@ 1 50
Copaiba		—	@ 80
Croton		95	@ 1 00
Cubebs		14 00	@14 50
Cumin, American		3 50	@ 5 50
Fennel		85	@ —
seed		1 50	@ —
Geranium, Turkish		3 00	@ 3 50
rose, French		8 00	@ 9 50
Gingergrass		2 25	@ —
Juniper, once rect		—	@ 1 10
twice rect		1 75	@ 2 10
wood		27	@ 37
Lavender, garden		1 75	@ 75
flowers		1 75	@ 1 85
Lemon		1 15	@ 1 70
Lemongrass		62½	@ 70
Neroli, bigarade		40 00	@45 00
Portugal		27 50	@ —
Petale		50 00	@ —
Nutmeg		2 00	@ 2 25
Orange, sweet		1 15	@ 1 60
bitter		1 65	@ 4 00
Origanum		18	@ 25
Peppermint, tin cans		2 00	@ 2 35
cases		2 90	@ 3 25
A. M. T. crystal white tins		2 40	@ 2 55
cases		3 00	@ —
Pennyroyal		90	@ 1 00
Rose		4 65	@ 4 75
Ihmsen's	₱ oz	5 00	@ 5 25
Holstein's		4 75	@ 5 00
Rosemary, Trieste	₱ lb	47½	@ —
French		—	@ 35
Flowers		70	@ 1 10
Sandalwood		2 25	@10 50
Sassafras		50	@ 55
Spearmint		2 25	@ 3 00
Tanzy		2 95	@ 3 50
Thyme, red		21	@ 82½
white		30	@ 1 10
Wintergreen		—	@ 2 00
Wormseed		1 50	@ —
Wormwood		4 50	@ 5 00

Flowers.

Arnica	₱ lb	7	@ 8
Chamomile, German		18	@ 25
Roman (new)		30	@ 32½
Insect		45	@ 55
Lavender		3	@ 7
Rosemary		15	@ 20
Saffron, American		13	@ 13½
Alicante		7 00	@ 9 00
Valencia		12 50	@14 25

Gums.

Aloes, Cape	₱ lb	5½	@ 7
Barbadoes		19	@ 25
Curacoa		4	@ 6
Socotrine		40	@ 52
Arabic, 1st picked		84½	@ 97
2d picked		84½	@ 97
3d picked		74½	@ 77
4th picked		64½	@ 67
5th picked		54½	@ 57
6th picked		36	@ 37
Sorts		52	@ 70
Siftings		25	@ 40
Senegal		33	@ 52½
Asafœtida		8½	@ 10
Benzoin		25	@ 40
Camphor, refined, in bbls		24	@ 24½
in cases		25	@ 25½
Chicle		26	@ 27
Euphorbium		15	@ 17
Gamboge, pipe and block		50	@ 60
Gedda, siftings		—	@ —
sorts		22	@ 25
Guaiac		18	@ 22
Kino		11	@ 12
Mastic		80	@ 90
Myrrh		20	@ 32
Olibanum, tears		15	@ 18
sorts		6½	@ 7½
Sandrac		17	@ 20
Scammony, Aleppo		25	@2 50
Virgin		7 50	@ —
Tragacanth, Aleppo, 1st flake		41	@ 43
2d flake		37	@ 40
3d flake		32	@ 35
Turkey, 1st flake		70	@ 75
2d flake		55	@ 57½
3d flake		40	@ 45

Herbs and Leaves.

Aconite	₱ lb	9	@ 11
Althea		8	@ 10
Belladonna		12	@ 15
Buchu, short		6½	@ 8
long		20	@ 25
Coca		25	@ 32
Damiana		25	@ 28
Digitalis		6	@ 9
Eucalyptus		4	@ 5½
Grindelia robusta		12	@ 14
Henbane (hyosciamus)		12	@ 14
Horehound		6	@ 8
Jaborandi		25	@ 27
Laurel		3½	@ 4
Lobelia		4	@ 7
Matico		20	@ 22
Marjoram, German		14	@ 20
French		9	@ 11
Prince's pine		—	@ 8
Rose, red		95	@1 00
pale		40	@ 55
Rosemary		3	@ 4
Sage, Italian		2½	@ 2½
Senna, Alex. nat		24	@ 25
siftings		19	@ 21
garbled and sifted		34	@ 35
Tinnivelly		9	@ 18
Thyme		4½	@ 10
Uva Ursi		4	@ 4½
Yerba Santa		12	@ 14

Roots.

Aconite	₱ lb	10	@ 12
Alkanet		7½	@ 9
Althea, whole		12	@ 12½
cut		14	@ 16
Angelica, German		10	@ 12
American		9	@ 10
Arrowroot, Bermuda		31	@ 35
St. Vincent, bbls & cns		10	@ 15
Jamaica		10	@ 11
Arnica		7½	@ 8
Belladonna		8	@ 12
Blood		10	@ 12
Burdock		7½	@ 8
Calamus, bleached		—	@ 40
unble'd, split & peeled		19	@ 24
Canada snake, select		34	@ 38
Colchicum		—	@ 10
Colombo		8	@ 11
Culvers		15	@ 16
Dandelion, German		10	@ 12
American cut		11	@ 12
Elecampane		6	@ 8
Galangal		3	@ 3½
Gentian		4½	@ 5
Ginseng		1 75	@2 15
Ginger, Jamaica, unbleached		12½	@ 13½
American, bleached		14½	@ 15
London, bleached		14½	@ 15
Golden seal		26	@ 24
Hellebore, white, powdered		9	@ 9½
whole		5½	@ 6
Ipecac, Rio		1 75	@1 85
Jalap		11½	@ 12
Kava Kava		18	@ 20
Lady slipper		12	@ 15
Lovage, American		40	@ 50
German		9	@ 20
Licorice, ordinary		5	@ 7
selected, in bdls		12½	@ 20
Mandrake		—	@ 5
Orris, Florentine		13	@ 16
finger		48	@ 75
Verona		6	@ 7½
Pareira brava		20	@ 25
Pellitory		16	@ 18
Pink		42	@ 45
Rhatany		5	@ 8
Rhubarb, whole		17½	@ 60
cut		60	@1 50
Sarsaparilla, Honduras		20	@ 30
Mexican		7½	@ 8
American		6	@ —
Senega, Southern		38	@ 40
Western		33	@ 35
Serpentaria, Texas		24	@ 25
Stillingia		8	@ 10
Squills, ordinary		—	@ 9
white, prime		8	@ 9
Valerian, German		10	@ 11
Belgian		7	@ 9
English		—	@ 17
Vermont		10	@ 11
Yellow dock		7	@ 9

Seeds.

Anise, Italian	₱ lb.	9	@ 12
German		—	@ —
star		23	@ 24
Canary, Sicily		3	@ 3½
Smyrna		2½	@ 2½
Spanish		3	@ 3½
Caraway, Dutch		6½	@ 6¾
German		—	@ —
Cardamom, Alleppy		45	@ 80
Malabar		65	@ 85
Mangalore		60	@ 1 50
Celery		11	@ 12
Colchicum		38	@ 40
Clover		9	@ 11
Coriander, English		4½	@ 5
French		4½	@ 5
German		4	@ 4½
Cummin		12½	@ 13
Fennel, German		8	@ 10
Fœnugreek		2½	@ 3
Guinea grains		7½	@ 8
Hemp, Russian		2¾	@ 3¾
Smyrna		—	@ —
Lobelia		25	@ 30
Millet, domestic	₱ bush.	1 10	@ —
foreign	₱ lb.	2½	@ 2½
Mustard, California yellow		3½	@ 3⅝
Dutch		3½	@ 4
English		4	@ 5
Trieste brown		4½	@ 5
Poppy		5	@ 5½
Quince, German		55	@ 60
Russian		28	@ 30
Rape, domestic		2¾	@ 3
English		3	@ 3¾
German		3	@ 3½
Timothy		2½	@ 2¾

Shellac.

D. C	₱ lb.	18½	@ 19
Octagon B		14	@ 14½
V. S. O		—	@ 15
Diamond I		14	@ 14½
S. S		—	@ 13½
Garnet, A C		—	@ 10
T. N. quality		12	@ 12½
Button		14	@ 16
Bleached		19	@ 20

Spices.

Cassia, Batavia	₱ lb.	6½	@
China		4¼	@ 4½
Saigon, rolls		32	@35
broken		25	@28
chips		7	@10
buds		9¾	@—
Cloves, prime, Zanzibar		15	@—
Amboyna		25	@—
stems		4½	@ 5
Ginger, African		3½	@ 4
Calcutta		3	@ 3¼
Cochin		6	@10
Mace, Batavia		60	@—
Banda		65	@—
Penang		65	@—
Nutmegs, 110's		57	@58
Pepper, Singapore		16¼	@16½
West Coast		15¾	@15½
Acheen, prime		14¾	@15½
Penang, white		—	@22½
Singapore, white		—	@25½
red, Zanzibar		7¾	@—
Bombay		—	@ 6¼
Pimento, prime		5	@ 5½

Chemicals.

Heavy Chemicals.

Alkali, 56 ₱ cent		1 12½	@1 15
refined, high test		1 15	@1 25
Bleach, over 35 ₱ cent		1 85	@1 92½
Saltcake		50	@ 57½
Soda ash, carb, 48 per cent		1 22½	@1 35
high test		1 12½	@1 15
caustic, 48 ₱ cent		1 22½	@1 35
Soda ash caustic high test		1 12½	@1 15
Newcastle, 48 per cent		1 22½	@1 30
high test		1 15	@1 20
Soda bicarb, English		3 10	@3 35
American		3 00	@3 50
carbonate		1 75	@1 80
caustic, 60 ₱ cent		2 30	@2 35
70 ₱ cent		2 15	@2 20
74 ₱ cent		2 15	@2 20
76 ₱ cent		2 17½	@2 20
sal, English		95	@1 25
American		95	@1 30

Acids.

Acid, acetic,		2¼	@ 2½
chemically pure		16	@ 17
pure		5½	@ 8½
oxalic		6½	@ 7
sulphuric, 60 deg		90	@ 95
66 deg		95	@1 20
muriatic, 18 deg		1 15	@1 20
20 deg		1 30	@1 50
22 deg		1 40	@1 80
nitric, 36 deg		4	@ 5½
38 deg		4½	@ 6
40 deg		5	@ 6½
42 deg		5½	@ 7
tartaric, crystals		43	@ 44
powdered		44	@ 45

Ammonias, Potashes and Fertilizing Chemicals.

Ashes, pot, 1st sorts	₱ lb.	4	@ 4¼
pearl		5	@ 5¼
Potash, chlorate, English		14½	@ 14¾
powdered		14½	@ 14¾
carb		4 70	@ 5½
caustic		7¾	@ 8
cyanide, fused		39	@ 40
sulphate of		1 00	@ 2 05
Aqua ammonia (in cbys) 16%	₱ lb.	3½	@ 3¾
18%		—	@ 4¾
20%		—	@ 6
22%		6	@ 7
28%		10	@ 11
Ammonia, muriate		6½	@ 8
sal		8	@ 8½
sulphate		3 05	@ 3 10
AMMONIAS, ETC.:			
Azotine, ₱ unit		2 30	@ 2 35
Blood, dried, red, ₱ unit		2 37½	@ 2 40
black, ₱ unit		2 30	@ 2 35
Bones, rough, ₱ ton		16 00	@20 00
ground, ₱ ton		20 00	@25 00
Bone black, refuse, ₱ ton		16 50	@17 00
Kieserite		5 50	@ 5 75
Menhaden guano		25 00	@28 00
Phosphate rock, f. o. b. Charleston		5 50	@ 6 00
Phosphate rock, ground		9 50	@ 9 75
Acid phosphate		12 00	@15 00
Potash muriate, ₱ 100 lb		—	@ 1 80
Kainit, ₱ ton		9 50	@10 30

Miscellaneous.

Acetate of lime, gray		2 25	@ 2 30
brown		1 15	@ 1 20
Alum, lump		1¾	@ 1¾
ground		1½	@ 2
Cake		1½	@ 1¾
Argols, crude Oporto		—	@ —
plate		23	@ 24
half refined		28	@ 32
Arsenic, white		3	@ 3½
red		5½	@ 5¾
Brimstone crude, best 2ds		19 25	@23 00
3ds		18 50	@21 00
Copperas, ordinary		50	@ 57½
best grades		75	@ 1 00
powdered		1¼	@ 1¼
Cream tartar, crystals, 99 p. c.		32	@ 32½
powdered, 99 p. c.		32½	@ 33½
Glauber salts		75	@ 80
Epsom salts		1 15	@ 1 20
Nitrate of lead		9	@ 10
soda		2 05	@ 2 07½
Rochelle salts		28	@ 30
Sugar lead, brown		7½	@ 8
white		13	@ 13½
Saltpeter, crude		5	@ 5½
refined		6	@ 8
Vitriol, blue ordinary		5½	@ 6
extra		6	@ 6¼

Dyestuffs.

Acid picric best crystals	₱ lb.	50	@ 55
Albumen prime egg		60	@ 65
imported blood		16	@ 16½
domestic blood		15	@ 16
No. 1½ blood		—	@ —
Alizarine		18½	@ 20½
Annatto		12	@ 25
seed		10	@ 16
Archil weed		7	@ 15
Aurine		58	@ —
Barbary root, cut		4	@ —
Bichromate of potash, Scotch		10½	@ 11
American		10½	@ 11
Bichromate of soda		8½	@ —
Carmine of indigo		40	@ —
Cochineal, Teneriffe silver		30	@ 32
black		30	@ 32
gray black		33	@ 35
Mexican		—	@ —
ammoniac		—	@ 37
Cudbear, French		12	@ —
concentrated		25	@ —
English		12	@ 30
Cutch, slab		7½	@ 8
bag		6½	@ 6¾
Dextrine		5½	@ 6
Divi divi	₱ ton.	55	@60 0
Fullers earth, lump	₱ lb	90	@ 95
powdered		1¾	@ 2
Flavine		21	@ 23
Fustic stick	₱ ton	20 00	@25 00
Gambier	₱ lb	7	@ 7½
Garancine		8½	@ 9
Indigo, Bengal, low grade		85	@ 1 00
medium		1 10	@ 1 25
high grade		1 25	@ 1 40
Caracas		—	@ —
Kurpahs		75	@ 1 05
Gautemalas		70	@ 80
Manila		70	@ 75
Madras		65	@ 85
Indigotine		3 00	@ 4 00
Lac dye		9	@ 15
Logwood stick	₱ ton	35 00	@40 00
Madder, Dutch	₱ lb	7½	@ 8
French		5	@ 7
Myrobalans		2	@ 2¾
Muriate of tin		10	@ 15
Nitrate of iron, commercial		2	@ 3
true		5	@ 6
Nutgalls, blue Alleppo		14¾	@ 15½
Chinese		15	@ 16½
Oxymuriate of antimony		4	@ 6
Persian berries		15	@ 17
Prussiate of potash, Am. yellow		—	@ 19
red		42	@ 45
Scotch yel		19	@ 20
red		42	@ 45
Prussiate of soda		17½	@ 18
Phosphate of soda		7	@ 8
Safflower		—	@ —
Sago flour		3½	@ 3¾
Salts of tartar		6½	@ 7
Soluble oil		—	@ 6
Sumac, Sicily prime	₱ ton.	57 00	@70 00
Virginia		45	@ 50
Starch, corn	₱ lb	2¾	@ 3½
potato		4½	@ 4¾
wheat		5½	@ 6
Stannate of soda, 40% soluble		—	@ 12
25% soluble		—	@ 9
20% soluble		—	@ 8
Tin crystals		16	@ 18
Turmeric root, Alleppy		3	@ 3½
Bengal		—	@ —
Corringa		3	@ 3½
powdered		5	@ 6
Ultramarine, imported		20	@ 30
American		5	@ 16
Vanadiate, ammonium		90	@ 1 00
Woad, English		9	@ 10
COAL TAR COLORS:			
Alizarine		19	@ 20
Aniline oil		20	@ 25
salt, crystals		16	@ 18
cake		20	@ 21
Bismarck brown		80	@ 1 20
Eosine		2 40	@ 3 00
Fast red		50	@ 65
Fast yellow—acid		75	@ 1 50
Fuchsine crystals		1 25	@ 1 75
Hoffman's violet—3B		1 75	@ 2 50
Methylene blues		4 50	@ 6 75
Methyl violets—2R		1 50	@ 2 00
2B		1 50	@ 2 00
B		1 50	@ 2 00
Nicholson (alkali) blue—3B		2 25	@ 3 00
5B		3 75	@ 4 00
Red shade		2 00	@ 2 25
Nigrosine		1 35	@ 2 00
Orange A—II		40	@ 65
Safranine		1 75	@ 2 25
Scarlet R		45	@ 55
RR		50	@ 65
RRR		70	@ 75
Soluble blue—green shade		2 00	@ 3 50

These prices are for colors of standard purity in original packages. Reduced colors can be obtained at irregular and very much reduced figures.

CHIPPED DYEWOODS, ETC.:			
Barwood	₱ lb	1¾	@ 2¼
Camwood		4¼	@ 8
Fustic, com		1½	@ 1¾
Cuban		1¾	@ 1¾
Green ebony		3½	@ 4
Hypernic		3½	@ 4¼
Logwood, Campeachy		2	@ 2¼
Laguna		2	@ 2¼
Nicwood		2	@ 3
Peachwood		3½	@ 3¾
Quercitron		1½	@ —
Redwood		2	@ 3
Red sanders		—	@ 3
EXTRACTS:			
Archil	₱ lb	—	@ 33¼
concentrated		21	@ —
Black oak		23½	@ 28¼
Barberry, French		26	@ 30
Chestnut		5½	@ —
Chestnut oak		3½	@ —
Refi'd sedimentless hemlock		4½	@ 6
Prime hemlock		3½	@ 4
Fustic, solid		10¾	@ —
liquid, 51 deg		8	@ —
Indigo extract		73½	@ —
Logwood, solid		10	@ 11
liquid, 51 deg		6½	@ 7
42 deg		5½	@ 5¾
Persian berries, French		22	@ —

COMPARATIVE PRICES.

	1887.	1886.	1885.
CHEMICALS.			
Bleaching powder	1 95	1 46	1 65
Caustic soda, 70%	2 40	2 50	2 55
Caustic soda, 60%	2 52½	2 75	2 80
Sal soda	97½	86	1 05
Soda ash, 48% carb	1 20	1 28	1 35
Soda ash, 48% caustic	1 20	1 28	1 30
Soda ash, 48-52% N. C	1 10	1 24	1 30
Soda alkali, 58% B. M	1 20	1 28	1 35
Soda nitrate	1 80	2 15	2 00
Brimstone	$18 75	$21 00	$22 25
Cream tartar	34¼	34¼	33¾
Muriate of potash	1 70	1 68	1 67½
Chlorate of potash	15¼	16¼	16¾
Kainit	7 75	6 99	7 00
PAINTS.			
White lead in oil	5¾	7	6¼
Litharge	5½	5½	5
Paris green	18	16	16
Orange mineral	7¾	8	8¼
Ven. red, English	1 40	1 40	1 40
Ven. red, American	1 00	1 00	1 70
Barytes	$16 00	$18 50	$16 00
Whiting, Commercial	45	36	37½
DRUGS.			
Opium	$4 75	$2 75	$3 35
Morphine, domestic	3 10	1 90	3 20
Quinine, German	41	50	68
Quinine, domestic	47	58	68
Cinchonidia, domestic	8	9	14
Alcohol	2 03	2 08	2 08
Borax, city	6¾	6¾	8
Beans, tonka (Ang)	1 35	1 50	1 60
Cubebs	1 00	90	70
Cuttlefish	12½	12½	14½
Glycerine, American	19½	15½	15½
Oil, castor, city	17	17	17
Oil, codliver, Nor	27 00	27 00	34 00
Quicksilver	51	50	41
Oil, bergamot	2 20	2 25	1 60
Oil, cassia	66	65	80
Oil, cubebs	9 00	8 00	6 50
Oil, lemon	1 15	2 00	70
Oil, peppermint, tins	2 25	3 10	3 90
Oil, sassafras	30	35	42
Aloes, cape	5¾	5	8½
Asafœtida	9	11½	12
Gum arabic, 1st picked	92¾	82½	50
Gum arabic, sorts	57½	30	26
Camphor	22¾	23	22
Shellac, D. C	16¾	16½	19½
Senna, Alex. Nat	29	27½	11½
Gentian root	3¾	4½	4½
Ipecac	1 25	85	82½
Canary seed, Smyrna	2½	2¾	2¾
Caraway seed, Dutch	8¼	7½	11
Coriander, English	5	4½	5¾
Hempseed	2	2¾	3
Mustardseed, Cal. yel	4½	5¾	5
Mustards'd, Trieste, br	7	5½	5
Rapeseed, English	4	3½	4¼
Rapeseed, German	3¼	3	3½
OILS.			
Linseed, domestic	50	43	47
Cottonseed, prime, S. Y	40	37½	36½
Olive, Sicily	66	73½	74
Palm, prime	4½	5¼	6¾
Cocoanut, Ceylon	5¼	5¾	6¾
Lard, prime city	54	53½	51
Menhaden, prime cdle	20	21	26
Whale, bleached win'r	40	41	53
Sperm, bleached win'r	72	87	95
Paraffine, 25 gravity	8	9¼	10¾
Neutral, 34 gr. b'less	13	16	18
Black, 29 gr. 15°	8	7½	9
Cylinder, 600°	15	17	20
Oil cake, western	21 75	25 75	29 50
Spirits turpentine	32½	34	34¾
DYESTUFFS.			
Cochineal, Teneriffe S.	30	30	29
Cutch	7¾	6¾	6
Gambier	5	4¾	4¾
Indigo, Bengal h grade	1 25	1 45	1 40
Bichromate potash	10¼	9¾	9¾
Prussiate potash, yel	18¾	19	21½
Sumac, Sicily prime	70 00	75 00	83 00
Starch, west'n corn	2½	2¾	2¾

moot point. With the countries of Southern Europe, Portugal, Spain, Italy and Turkey, business in pharmaceutical articles has been rather below the quinquennial average, but an explanation of this may perhaps be found in the fact that in 1887 these countries were comparatively free from epidemics, which in the preceding sessions may have caused an abnormal demand for medicines. Our exports to China, and still more to Japan, have been very satisfactory, those to the latter country, indeed, show quite an extraordinary increase, all the more gratifying because the reports of our representatives in Japan have lately been exceptionally gloomy in tenor, and some of our consuls have even gone the length of specifically mentioning the drug trade as an example of our incapacity to compete with the Germans. In previous issues of this Journal we have called attention to the evident exaggeration of those complaints, by quoting from the reports of foreign consuls in Japan, and now our own Customs statistics prove beyond doubt that we are gaining ground in Japan very rapidly, our shipments of British-made pharmaceutical and chemical articles in 1887 being respectively 38, 120, 105 and 160 per cent. larger than in the four preceding years. Our exports of pharmaceutical preparations to the United States, which had fallen very low in 1886, have considerably improved in 1887. What amount of the same class of goods we receive from that country in return is not indicated in the Customs statistics, but the very fact that no separate entry has been made under this head seems to show that our imports of American-made medicines cannot be by any means so large as some alarmists would have us believe. Our exports of pharmaceutical preparations to Spanish America are progressing very steadily, the increase last year, as compared with the previous five years' average, being: Columbia, 45 per cent.; Uruguay, 30 per cent.; Mexico, 25 per cent.; Spanish West Indies, 20 per cent.; Argentine Republic, 15 per cent.; Central America, 15 per cent.; Brazil, 5 per cent; and Chili, 5 per cent. The exports to Peru were 15 per cent below the average, but they are not very important in any case, and the perennially unsettled state of the country renders business there peculiarly liable to violent fluctuations.

With British colonies and dependencies our trade in pharmaceutical preparations during the year 1887 has not been equally satisfactory, but at the same time, strange to say, our shipments of chemical preparations to those countries have increased more than sufficiently to cover the loss on the exports in the allied branch. To British India our shipments of British-made pharmaceutical preparations were 10 per cent below the average since 1883, while crude drugs and foreign preparations increased by 30 per cent, though it would be erroneous to assume that these figures prove beyond doubt that our continental rivals are taking Indian custom away from us. Our exports of British-made chemical preparations to British India were 23 per cent above the average, and Ceylon bought 8 per cent more medicines from us than her average. South African business has been decidedly brisk last year, both as regards pharmaceutical and chemical exports. The enormous advance in the shipments of chemicals to south Africa is probably accounted for by the development of copper and gold mining in that country, and the consequent increased demand for chemicals used in the treatment of ore. Of pharmaceutical preparations the Cape Colony bought 10 per cent., and Natal 25 per cent. above the average. The value of the shipments of medicines to Australia sank below par last year, with the exception of Victoria, which brought 5 per cent. above the average; but Western Australia received 3 per cent. New Jealand 5 per cent., New South Wales 10 per cent., Tasmania 15 per cent., South Australia 20 per cent., and Queensland 28 per cent, below the average. It must be remembered however, that the figures are given only in values, and that the average price of drug and medicines generally was lower in 1887 than in any previous year.

Our receipts of customs duties are very large, considering that we are the most free-trading nation in the world, but then our system is to tax very highly indeed the few classes of goods upon which we do levy duty. Last year's customs receipts, though comparatively small, were still £19,861,754, and nearly £5,500,000 pound of this amount is derived from taxes which must be swept away whenever the vision of a "free breakfast table" is realized. Among the duty-liable articles are several of pharmaceutical interest, but only a few which yield a sufficiently large return to make it worth collecting. One is perfumed alcoholic spirits, of which we received 49,886 gallons, worth £84,748, and on which £26,442 was collected. 31,126 gallons (the bulk of this probably representing eau de Cologne) of perfumed spirits were imported from Germany *via* Holland. France contributed 15,950 gallons of perfumed spirits, and the Channel Islands, where there is a rather important trade in Jersey eau de Cologne, 1,130 gallons. Altogether 32,059 gallons of perfumed spirits were cleared for home consumption during the year. Another important dutiable article is spirituous transparent soap, of which we received 29,408 lbs. via Holland, but probably of German manufacture, while Austria sent us 5,040 lbs., and other countries 8,612 lbs., the whole yielding £2,003 duty. Chloral hydrate, nearly all of German make, is represented by 20,282 lbs., paying £4,602 duty, chloroform (also German) by 2,688 lbs., on which £275 duty was paid. Then there were 4,706 gallons of sulphuric ether (duty, £1,113), 570 lbs of acetic ether (duty £29), 511 gallons of collodion (duty £171), and 1 gallon ethyl iodide, all from Germany. The duty on iodide of ethyl is 13s per gallon, yet on this particular gallon 40s duty was paid—why is not quite clear. There are no less than 110 ports in the United Kingdom at which dutiable articles were cleared by the Customs officers last year, and of these 76 are to be found in England and Wales alone. Up to 1884 there were many more, but some of the smaller ones have since been amalgamated or joined to more important centers, though it would seem that the list might be further reduced with advantage; for while at London £10,396,778, and at Liverpool £2,643,168 was collected, the receipts at Kirkcaldy were only £9; at Stornoway £2, and at Banff, £1; while at Bandon, in Ireland, nothing whatever has been received for the last three years. The imports of free and dutiable goods into the United Kingdom, representing in 1887 a value of £362,227,564 are distributed over 116 ports, some of these, such as Newhaven, Queenborough, Harwich, Fleetwood, Stranraer, &c., being practically only suckers, through which the goods received pass at once into the business centers. The most important ports in the United Kingdom, are, of course, London with £129,430,751 and Liverpool with £92,490,112 imports. Then follow Hull (£19,922,649), Harwich (£12,574,685), Glasgow, (£11,364,347), and Newhaven (£9,789,611). Besides these six, there are 19 other ports in the United Kingdom at which over £1,000,000 worth of goods is annually received from abroad. In 1883 the proportion of the imports into London and its tributaries to that of the whole of the kingdom was 41¼ per cent.; in 1887 it was 43½ per cent. the share of Liverpool declining during the same period from 27 per cent. to 25¼ per cent. It may also be pointed out that, while in 1883 the imports of the kingdom were distributed in the proportion of 89 per cent. for England and Wales, 8¾ per cent. for Scotland, and 2¼ per cent. for Ireland, the relative figures in 1887 were 90 per cent., 8 per cent., and 2 per cent. It would be highly interesting if it could be ascertained whether this increase in the proportional trade of England, and especially of London, is due merely to the fact thrt other ports of the country have suffered more from the general depression in trade, or whether there really exists a strong tendency for concentration of the trade of the country toward the metropolis.

Preparing Crude Drugs for Market.

As considerable export business is done in roots, barks and leaves by American houses, and as many of the articles are shipped for the purpose of being offered at the London public sales, the following advice from the *British and Colonial Druggist* will prove of interest, as it shows what condition the goods must be in to get fair prices at the auctions;

In the collection of roots it is most important to insure the similarity of the portions gathered. Roots do not possess very marked characteristics to the perception of the class of men who generally procure them, and the mixture of the same parts of quite different plants is shown by experience to be not uncommon. The collectors ought therefore to have a sufficient practical knowledge of the characters, not only of the root but of the entire plant. In some cases roots have to be collected when the latter is in a very early stage of development, so far as appearances above ground indicate, as at such times, i. e., at the commencement of a renewed germinations. the active principles may be most concentrated. This fact necessitates a familiarity with the characters of the first leaves and cotyledons of such plants. It is here appropriate to point out that very much depends upon the time at which drugs are collected, for the reasons already hinted at—the relation of alkaloidal content to the stage of growth. When removed from the earth or matrix in which they were growing, the roots should be freed from adherent soil by washing, and the small rootlets removed if it is customary to introduce them thus trimmed into commerce. The presence of such tendril-like appendages to the article detract in most cases from its appearance, increase the difficulties associated with packing, and do not generally in any way add to the value of the drug. It is also worthy of remark that such operations can be carried out by native labor at the scene of collection at a minimum cost, while in London they cannot be effected without a relatively considerable additional expense. Generally, too, all parts of the stem and the crown of the root are cut off cleanly, and, in the case of rhizomes, rudimentary leaves also trimmed off. The preliminary measures completed, the next concern is to dry the roots as soon as possible, after first cutting them into smaller portions if desirable or usual. Small varieties are frequently not submitted to any dividing process, but large ones are generally cut into pieces suitable for handling and packing. There are exceptions to this rule, some roots, as is the case of sarsaparilla, being imported in bundles of the entire part. The cutting process is to some extent dependent on the nature of the material. Thus, if it dense and woody, division is less necessary than when it is fleshy and contains much moisture, like calumba. A minor detail, but one worthy of attention, is, that the pieces should, as far as possible, be uniform in size, and the sections well defined. In the case of roots of considerable diameter, longitudinal splitting should be also resorted to. In drying, a medium heat is best, extreme temperatures being avoided. The operation is best conducted in the open by the combined influence of the sun's rays and of air. The material must be allowed ample room, and should be distributed over a space sufficiently large to obviate the necessity of any of them being superimposed. In order to prevent mould and the growth of fungi, as also to ensure uniformity of coloring, the roots should be turned as frequently as possible, so that all parts may be equally exposed to the drying agencies. Although these directions may seem very minute, it will be found that the trouble entailed is amply repaid when the product reaches the market.

It seems to be necessry to define the meaning attached to the expression "dry." A drug is considered dry when by further exposure to heat and air it ceases to lose weight. When then the roots are thus dry they must be again looked over, and any pieces of a damaged or rotten appearance thrown aside. They are then ready for packing.

The material used for packing is generally canvas sacking, which should be strong and of a close texture. Wooden boxes or cases are also suitable for the purpose. Both cloth and cases should be quite new and clean, and the exporter should take steps to ensure the constant use of similar packing material, and the adoption of a uniform style of bale, so that the brand of the goods may be in a greater or less measure indicated by the appearance of the parcel. A fancy form is neither desirable nor necessary, the main thing being neatness and uniformity. If the roots are very fleshy, and hence difficult to perfectly dry, or if they be of a hygroscopic nature, it is preferable to use sacking, as through it a circulation of air is possible, and thus the growth of fungi is prevented. In the shipping and stocking of roots, and, indeed, of drugs of all kinds—care must be taken to avoid contact with substances of an aromatic and pungent nature, as dry vegetable tissues absorb such odors with great readiness, and are thereby deteriorated, or even rendered quite useless. Similar precautions must also be taken in shipping the goods, dry situations being selected, with such an arrangement of the bales as will permit of free access of air. It is better to pay a good price for intelligent and skilful storing than, by the exercise of a false economy, to run the risk of ruining the consignment.

Woody stems are most conveniently sawn up, and the different pieces after separation packed in the canvas sacking already referred to. With these parts of the plant also it is better to make segments of equal length, so that uniform parcels may be formed. If the bark is not required, it it taken off with due care, so as not to injure the wood and spoil its appearance; while, with regard to packing, the same observations apply as have been made above concerning roots,

There is perhaps no class of drugs which has a more extended use than barks, or which presents a larger range of variation.

The collection of barks is not without difficulties in the direction of obtaining good pieces, and it is, nevertheless, noteworthy that there is no kind of drug in which appearance is more important. The specimens should, if possible, be taken from stems of fairly equal diameter, and should be of uniform thickness. The different pieces ought to be as long as possible; and bark from trees of widely varying stages of growth should not be mixed together. When the bark gathered is that of a woody stem, it is desirable that as little of the latter as possible should be taken with the bark. The frequent variation in the color of barks must be taken into consideration, and it would be well to separate the collection, while yet fresh, into lots according to color. The material is generally introduced in the form of large pieces, and care must be taken that these are kept flattened in drying, as warping and curling spoils the appearance of the product, and interferes with the packing. The bark of branches is commonly in small pieces, from 3 to 6 inches long, except in special cases, as cinnamon, where it is the custom to import it in long quills—a form in which smaller and thinner varieties of bark generally, may be advantageously prepared. While fresh the cutting up is done, and the same particulars are to be observed as were described and recommended under the heading of "roots." Before the next operation, that of drying, it is well to remove any portions of lianas or parasitic climbing plants which are adhering to the bark, or, if this course would too much ruin the bark, such pieces would be better discarded if the abundance of the supply allow of such a waste. Drying and packing are also prosecuted in the manner already detailed. It is only necessary to remark, in connection with the tarred bags sometimes employed, that with material which is not quite dry—and it is difficult to artain the condition with all specimens—the use of such packing will tend to favor the production of mouldiness, or at least of fustiness. The avoidance of even the last characteristic is very necessery, as even though the appearance of the drug may be unchanged buyers will not be favorably impressed by the smell.

Leaves are the parts of a plant which demand the greatest care and involve the greatest trouble in preparation. While in roots, stems and barks we are dealing with substances more or less compact, and in comparatively large pieces, we are working with quite different material when leaves are under treatment for the drug market. The most important detail of all which the importer or planter should constantly bear in mind, not only with regard to leaves but also in connection with flowers, is that directly they are gathered the drying should be commenced, as this is the only means by which change of color and consequent deterioration can be prevented. Leaves should be gathered without the leaf stalk or petiole, unless it is desired on the market that the young branches should be also imported. It is scarcely necessary to emphasise the need of selecting only good, vigorous leaves of uniform color, and of the supervision of competent persons to prevent the admixture of leaves other than those required. Here again, further, the various articles should not be in widely differing stages of growth, but all well developed. The presence of any considerable quantity of young leaves quite alters the appearance of a parcel because of the difference in texture. After gathering, the material is carefully kept out of the way of moisture, spread upon cloths and dried by exposure to the air as quickly as possible, the operation of turning being the best means of facilitating the process. It will be necessary to prevent the leaves from rolling up, and to endeavor to make them retain, as far as possible, their natural appearance, shape and color. The smallest proportion of dirty and ill-developed leaves is not passed unnoticed, and the value of a large consignment may be much lowered by the presence of such in any quantity. When packing, care should be taken that the leaves are not all broken up, but laid as flatly as can be in bags or cases. It is useful to even press the leaves, as they then lie closer, occupy less room when packed, and preserve better the original shape. Leaves of very fine quality, or possessed of a characteristic aroma, are best packed in tin-foil lined cases—an observation that applies to all classes of drugs.

What was mentioned as important with roots, namely, guarding them from contact with strong smelling drugs, is equally applicable to leaves, which, with herbs and flowers, are even more susceptible to absorbtion of odors.

Recent Patents.

387,324. METHOD OF DISTRIBUTING OIL DURING STORMS AT SEA. Issued Aug. 7, 1888.

Claim.—1. The method set forth of distributing oil upon the surface of the ocean in storms, said method consisting in introducing said oil into the cylinder of a pump and projecting it, together with the water driven by the pump over the surface.

2. Said method consisting in pumping water from a suitable source and forcing it through a flexibly-connected nozzle, oil being admitted in fixed quantities to the pump cylinder, at each stroke.

387,357. ASPHALTUM COMPOUND AND PROCESS OF MAKING THE SAME. Issued Aug. 7, 1888.

Claim.—The process hercin described of refining asphaltum, which consists in adding it in small quantities from time to time to a bath of melted paraffine wax and mineral oil and subjecting it to heat sufficient to melt it and to volatilize certain impurities therein contained.

387,358. BITUMEN COMPOUND AND PROCESS OF MAKING THE SAME. Issued Aug. 7, 1888.

Claim.—The process herein described of hardening bitumen, consisting in melting it with paraffine wax and subjecting the same to heat to remove the volatile impurities.

487,487. APPARATUS FOR MANUFACTURE OF LAMPBLACK. Issued Aug. 7, 1888.

Claim.—1. The combination of a horizontal rotating deposit ring, with an annular row of gas burners arranged centrally under said deposit ring, and scrapers operating to automatically remove the black from the rotating deposit ring.

2. The combination of horizontal rotating deposit rings, gas burners and scrapers arranged under said deposit rings, with boxes for receiving the black removed from the deposit rings, and conveyers for conveying the black from the boxes to a conveyer out side of the building.

3. The combination of a series of upright posts, supporting rotating deposit rings and ratchet wheels, secured thereto with ratchet arms, horizontal reciprocating bars. pivoted to the ratchet arms, levers, and cam mechanism.

4. The combination of a series of horizontal rotating deposit rings, and gas burner under said deposit rings. with black receiving boxes, scrapers and screw conveyers for conveying the contents of the boxes away.

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Manufacturing Chemists,

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Iron preparations, all Scale Salts, Potassium Acetate Bromide, Chlorate pure gran., Cyanide, Iodide, Silicate Soda, Sodium Acetate, Benzoate, Bromide, Iodide, Phosphate, Salicylate. Zinc Acetate, Chloride, Iodide, Sulphate

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Bleaching Powder, Caustic Soda, Sal Soda, Carb Soda Crystals, Soda Ash, all tests, Bi-Carb Soda.

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Caustic Soda, Bleaching Powder, Soda Ash, Carbonated Crystals, Sal Soda, Bicarb Soda,

Caustic Potash, Carbonate Potash, Chlorate Potash,

ARSENIC.

Cocoanut Oil, Ceylon. Cocoanut Oil, Cochin. Palm Oil, Citronella, Fisher's Brand Cookson's Ven. Red, Orange Mineral,

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ESSENTIAL OILS,

LEMON, BERGAMOT AND ORANGE, GUARANTEED PURE.

PURE ALKALI.

Manufactured by the Ammonia Process.

This Alkali contains 58 per cent. of Alkali or nearly 99 per cent. of Carbonate of Soda. It is the most economical form of Soda for Manufacturers of Soap, Glass, Paper, Wood Pulp and Colors, and for Printers and Bleachers.

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NORTHWICH, ENGLAND.

AND

SOLVAY PROCESS CO.,

SYRACUSE. NEW YORK.

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TRADE MARK

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WING & EVANS have appointed as exclusive Sale Agents

KLINGER & MEYER, BOSTON, for New England States who are prepared to contract for future delivery

CHEMICAL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Aug. 14, 1888.

There are indications of returning activity in the market for heavy chemicals, but they are slight as yet and are offset to an extent by the disposition of many buyers to delay the placing of their orders to the last possible momement. In this they are influenced in a great measure by the downward tendency of prices, which has been a marked feature of this branch of trade for some time past. Such inquiry as exists is principally for forward delivery, and the most interested buyers are the glass manufacturers. As the latter have determined, practically, not to light their fires for the coming blast until a month beyond the usual date, and may be influenced to delay this operation for a fortnight after that, they are in no hurry to complete contracts for their supply of chemicals, and where they do place orders it is usually in consideration of concessions on the prices generally quoted for forward deliveries. Messrs. J. P. Brunner & Co. writing from Liverpool under date of the 4th inst. say: "Chemicals have been looking up somewhat this week and in several lines a good volume of business has been done. Soda ash is in active demand for carbonated for the States, and large sales are reported of 48% for prompt and forward delivery, at from 15-16@63-64d as to brand. Most makers are now well sold and are in some cases declining further orders. Caustic ash is quiet and in one case 15-16d has been accepted for 48%, but there is little to be had. Quotations are as follows, but it is difficult to get anything at the lower figures: Caustic ash 48% 15-16@1d, high test 15-16@1d; carbonated ash 48% 15-16@1 1-32d, high test 15-16@1d. Soda crystals continue dull at £2 10s nominally, but sellers might probably be found at 1s 3d less for a quantity. Caustic soda is in improved demand at the close and a number of sales of 70% have been made at from £6 10s@6 11s 3d, and at the close there are no sellers under the higher figure. Sixty per cent is held for £5 11s 2d@5 12s 6d; 74% is inquired for, and £7@7 2s 6d are nearest values. Bleaching powder is inquired for and sales have been made in the early part of the week at £7 7s 6d, but this price has since been refused and there are no sellers at under £7 10s; supplies are very limited. Chlorate of potash is depressed at 5½@5¼d, and the lower figure could probably be shaded for a fair line. Bicarbonate of soda is in limited demand at £4 12s 6d@4 15s."

Heavy Chemicals.

Liverpool brands of 48% carbonated soda ash are still neglected on the spot or taken only in accordance with the pressing needs of consumption, which at this season of the year are not very great. There is a better inquiry for future delivery, however, but the amount of actual business passing is small as buyers views as a rule are below what dealers can afford to accept. We note sales of 500 tons for future delivery at a private price, the general quotations for futures being 1 20@1 22½c. On the spot occasional small sales are made from store within the range of 1 27½@1 35c according to quantity and seller.

Newcastle soda ash is neglected, but as there is little procurable on the spot and nothing coming forward so far as known, prices are maintained with considerable firmness. We quote nominally 1 27½@1 35c as to quantity, for jobbing lots from store.

Caustic soda ash 48%, is meeting with very little attention. Buyers' wants at the moment are small and there is little disposition manifested by them to anticipate future requirements. Prices are more or less nominal, and we have to repeat our quotations of 1 22½@1 27½c as to quantity and brand, for future shipment, and 1 30@1 35c on the spot, for small quantities from store.

Refined alkali 36%, is not wanted and is entirely nominal in price. For 58% there has been considerable inquiry from glass manufacturers for fall deliveries and some contracts have been placed, though the particulars were not made public. The tone of the market remains steady with quotations unchanged at 1 12½@1 17½c, as to quantity and position. For 48% there is a moderate inquiry, but we find nothing special to report. The quotation is 1 20@1 25c, as to quantity.

Caustic soda is still neglected as the downward tendency of late seems to have impressed buyers with the idea that there is no bottom to prices for this commodity and they are in no hurry to place orders so long as they have no immediate need of the goods. However, there has been a steadier tone in the market of late and a recovery to more remunerative prices is considered one of the possibilities of the early future by some dealers. The nominal quotations at present are 2 32½@2 35c for 60% in a large way and 2 37½@2 42½c for smaller quantities while 70 and 74% are held at 2 17½@2 20c though some holders might still be willing to shade the inside figure.

English sal soda has remained quiet during the past week and we find no change to note in the situation. Prices are more or less nominal at 92½@95c for Liverpool brands, according to quantity and position but for the small quantity of Newcastle on the spot holders want 1 25c from store.

Bleaching powder finds a very small outlet as local dealers are restricted in their territory by the comparatively low offerings from Boston. Quotations here remain, nominally, 1 87½@1 92½c as to quantity but in the eastern market 1 82½c and possibly less is still accepted.

Acids.

Acetic acid has not been wanted to any extent, and small sales only are reported at from 2¼@2½c, as to quantity and brand.

Nitric and muriatic acids continue unchanged, with the market ruling quiet at old figures.

Oxalic acid has sold to a limited extent only, with the market absolutely featureless, at our former quotations of 6c for 10 ton lots, while 6½c is asked on orders for small quantities. These prices are for prime German and English ex store, New York, Boston and Philadelphia.

Tartaric acid continues without special feature, with the business at hand of moderate proportions and exciting no comment. Following are the unchanged quotations for crystals: In quantities of 3,000 lbs or more, 43c; in barrels, less quantity, 44c; in 50 lb boxes, 45c. For powdered a cent advance is asked over these figures.

Sulphuric acid is not in particular demand and the market is inactive at our former rates.

Miscellaneous.

Acetate of lime is in modcrate request, but there is no apparent activity, and the market is quoted as very weak at the following figures which are a slight reduction from last week, namely, 1 15@1 20c for brown and 2 25@2 30 for gray.

Blue vitriol is practically unchanged from last week. The trading has been moderate, while stocks continue light, and the tone of the market firm, at 5½@6c as to quality and quantity.

Nitrate of soda—There is more demand for shipment and cargo lots will now bring at least 2c. We are apprised of sales of about 7,000 bgs August@October shipment at this figure. The spot market is unchanged, with a better inquiry reported, and quotations at 2 05@2 10c according to quantity.

Brimstone—Considering the reduced quantity of available stock, present prices are considered low, and if, as from present appearances would seem probable, there should be a scarcity of freight room, higher prices will, without doubt, prevail. The transactions have been limited, while quotations are unchanged at $19 25 for best seconds and $18 75 for thirds, for shipment.

Cream tartar is in light request without special feature, while there is a marked evidence of firmness is the giving of quotations, which continue to rule at 32@32¾C for crystals and 32¾@33½c for powdered, as to style of packing and quantity.

Ammonias, Potashes and Fertilizing Chemicals.

There has been a pretty fair demand during the interval since we last wrote, and prices are quoted steady. This feeling has been specially so on the ammonias, which have been sold to a very fair degree, and quite a few transactions are reported: Azotine at $2 30@2 35, as to quality; dried blood, $2 30@2 35 for low grade Eastern in buyers' bags and $2 35@2 37½ for high grade Western finely ground; tankage, $23@24 for high grade, and $21@22 for medium and low grades, as to quality; sulphate ammonia, $3 15@3 20; bone-black guaranteed 70% phosphate, $17 50@19 per ton; dissolved bone, 90c per unit; acid phosphate, 75c per unit; rough bones, $21 per ton for hard and clean foreign, and $16 50 for the usual run of domestic; ground bone, $24@25 as to grade; fish scrap, $24@25 f o b factory. Undried Charleston rock is held at $5 per ton, and kiln dried at $6, both f o b vessel, at the mines. Ground Charleston rock is quotable at $9 50@9 75 ex steamer at New York.

Muriate of Potash has continued quiet for reasons which we stated in our previous issue, while quotations continue at $1 80 for spot and arrivals.

Double Manure Salts have not been called for to any considerable extent, and the market has been without special feature, with the following figures quoted: 1.05@1.07½c basis of 48% potash. High grade sulphate of potash is quoted at 2 15@2 20c per 100 lbs, basis of 90% potash.

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MANUFACTURING CHEMISTS
41 CEDAR ST., NEW YORK.
Oil Vitriol, Muriatic Acid,
Sulphuric Acid, 98 per cent.
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Our Refined Oil Vitriol is the purest Commercial Acid made in the World

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ACIDS
Mixed Acids for Nitro-Glycerine a Specialty.
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NATRONA BI-CARBONATE OF SODA
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SODA
(ABSOLUTELY PURE.)
The nature of the raw material from which NATRONA BI-CARBONATE OF SODA is made—viz., Kryolith, a mineral containing pure sodium—insures a purity and uniformity of product which cannot be obtained from any other known material. In making Bi-Carb. Soda from any other raw material, the use of sulphuric acid is a necessity, but none is used in any part of the process of making NATRONA BI-CARB; hence its entire freedom from the slightest trace of arsenic, which is always present in ordinary soda. Its absolute purity and entire freedom from all traces of sulphate of soda, common salt, and other impurities, render NATRONA BI-CARB NEARLY TASTELESS, and, being bolted through the finest bolting-cloth, insures the finest state of division.
To these indisputable facts the attention of CONSUMERS of soda is specially called. They are IMPORTANT, and should influence both those who use and those who sell soda, to buy and sell NONE BUT THE BEST.
The NATRONA Bi-Carb Soda is kept in stock by almost every wholesale druggist and grocer throughout the United States, of whom it may be ordered.
Natrona Bi-Carb. Soda is unequalled by any other brand of English or American Manufacture.
Penna. Salt Manufacturing Co.,
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Glue, Etc., Etc.

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Alkali Manufacturers, WIDNES.
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NITRATE OF SODA.	BRIMSTONE.	OIL BERGAMOT.

Finest Quality Philadelphia Quercitron Bark for Export.

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HIGH TEST BLEACHING POWDER.
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Soda Ash, Sal Soda, Venetian Red,
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Pattinson's Carbonate and Calcined Magnesia.
Carbonate in 2 oz., 4 oz. small square & powdered. Calcined ½ & 1 lb. bottles and 1 lb tins
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(100 per cent. Ammoniacal Gas Liquified.)
AQUA AMMONIA—all strengths.
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Kainit continues to be quoted at high rates, owing for the most part to the high rates of freight now ruling. The following are quoted: $10 for spot ex ship and $10 30 ex store. For nearby arrivals $9 75 is quoted, while for forward delivery $9 25 is asked. The demand is reported as fair, and no complaints are heard as to the volume of business doing.

Philadelphia Chemical Market.

PHILADELPHIA, August 13, 1888.

Very little life was noted in the English chemical market last week. Quotations are as a rule unchanged, and although most articles are firm, yet in one or two instances offers of less money might be accepted than would have been entertained a week ago. The arrivals have been limited, and the larger portion gone to fill contracts.

Carbonated Soda Ash, Liverpool, 48% is running along quietly; spot goods are quoted at 1 32@1 40. Shipments are held at 1 27½@1 35 as to brand. 58% is dull and unchanged Newcastle 48% is slow of sale and very light stock to draw upon, and in consequence holders are firm at 1 27½@1 35. For shipment limited quantities can probably be had at 1 25@1 30. Caustic soda ash, 48%, is selling n a jobbing way on spot at 1 30@1 40 as to brand. To arrive, 1 27@1 35 is named, but on firm offer a round lot might be had at slightly lower figures.

Caustic soda 60%, is held on spot at 2 42½@2 50c in a jobbing way, and nearly all sales at present are of this order; for a round lot, 2 40@2 45c would be accepted. Shipments are held at 2 37½@2 45c, and lower figures might buy on offer; 70% is quoted from store at 2 35@2 45c as to quantity. To arrive and for shipment, 2 25@2 32½c will buy.

Refined alkali 36% is dull and in light stock, and no change in figures reported. Solvay 36% is held at 1.20@1.30, as to date of delivery and quantity. B M 48% is in full stock, and selling at 1,27½@1.32½, to arrive, and for shipments 1,25@1,30 are the ruling prices. Considerable business has been reported during the past few days. B. M. 58% is scarce on spot, and nothing obtainable excepting from second hands, who are asking 1 27½@1 32½c. To arrive, the lots near due are well sold up, a little might possibly be had at 1 22½@1 25c. Shipments are held at 1 20@1 25.

Sal soda on spot is in moderate supply, and the jobbing demand is being filled at 1@1 12½c. To arrive 95c@$1 is named. Shipments can be had at 92½@97½c.

Bleaching powders are scarce at the moment and holders are naming 1.95@1.10 as to brand. To arrive 1.90@2.00 is named, and the same figures apply to shipments. Nitrate of soda can be bought from store at 2.10@2.25 and for shipments at 2.02½@2.10.

Recent Patents.

387,313. MEDICAL COMPOUND. Issued Aug. 7, 1888.

Claim.—The herein described medical compound for the treatment of piles, consisting of gunpowder, salt, and vinegar, in the proportions specified.

386,835. APPARATUS FOR DYEING. Issued July 31, 1888.

Claim.—1. An apparatus for dyeing yarns or other fibrous material, consisting of two open vats separate one from the other, each vat as uncovered and with the upper vat having depending vessels with a perforated top and bottom located in the upper exteriorly thereof, and liquid-forcing apparatus, as specified, by which the coloring-mixture supplied from the lower vat is permitted by gravity to permeate the material in process, substantially as herein set forth.

2. In apparatus for dyeing yarn or other fibrous material, the open mixing vat, the open dyeing vat disposed above and adjustable with respect thereto, combined with the vessels communicating with the mixing vat and the supply pipe, and forcing apparatus, substantially as herein described.

3. The combination, with a fixed mixing vat, the supply pipe, steam pipe, delivery pipe, and forcing apparatus, of the open dyeing vat, vertically adjustable, its overflow, and the removable vessels perforated at the top and bottom, located exteriorly of the dyeing vat, and communicating with the mixing vat, substantially as stated.

386,664. APPARATUS FOR ROASTING SODIUM BICARBONATE. Filed March 29, 1888. Issued July 24, 1888.

Claim.—1. The combination, with a revolving roasting cylinder, and a furnace for heating the same, of a mixing chamber connected to said cylinder and having an inlet for the bicarbonate and one for the carbonate, whereby a mixture is made and fed continuously to the cylinder, substantially as and for the purpose set forth.

2. The combination, with the revolving roasting cylinder, of an outlet for the soda, provided with a conveyer shaft having a corrugated roller on its end and a tangentially curved lifter within the cylinder formed with a corrugated face, whereby the material is continuously discharged and all lumps crushed, substantially as and for the purpose set forth.

3. The combination, with the mixing chamber of an apparatus for decomposing the bicarbonate of soda, of a hopper thereon having a feeding valve in its bottom, and a pipe connected thereto and provided with a conveyer stopping short of its connecting point, whereby the material is induced to fill the openings and prevent the admission of air, substantially as and for the purpose set forth.

4. The combination with the rotary roasting cylinder, of a discharge pipe and a conveyer therein made shorter than the pipe, substantially as and for the purpose set forth.

Salt and Soda in the United Kingdom.

A well attended meeting of the salt trade was held at the Adelphi Hotel, Liverpool, for the purpose of meeting Messrs. W. H. Fowler & Co., solicitors, of London, as the representatives of a syndicate of London financiers who are desirous of purchasing the whole of the salt interests in Cheshire, with the idea of forming one large company, says the *Chemical Trade Review*.

With one or two exceptions, the entire trade

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Ammonia Carbonate,	" Scale,	" Nitrate,	Tin Oxide
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was represented, and the meeting was practically unanimous in its determination to assist in the formation of a company which should do away with the present most wretched state of the trade. It has been known for some time that the prices many salt makers have realized for their manufactured article has been much less than the cost of production, and the salt manufacturers present at the meeting seemed to think that such an opportunity of putting the trade on a satisfactory basis had never before occurred. and that if the opportunity was let slip it was not likely to occur again for many years.

At the meeting in question an arrangement was entered into, by which each salt proprietor or manufacturer was to send in within one week the value which he places upon his works, flats, steamers, wagons, and everything used by him in carrying on his business. This will be submitted to the solictors, and it is believed that an arrangement will be made which will be satisfactory to all parties.

It is the general opinion that a sounder or better scheme so far as the salt interests are concerned could scarcely be devised, and that should the company be formed, salt proprietors retaining one-third of their purchase value in paid-up shares, will possess one of the best investments of the present day. The general desire in the whole of the salt district is that the negotiations should go on, and it is the intention of the syndicate to proceed, even if one or two firms should either stand aloof or put such an unreasonable price upon their property that the syndicate could not well afford to give it.

In the event of one large salt company being formed for Cheshire, there are certain elements which must not be left out of their calculations. The Cleveland salt district is now rapidly developing and is not only supplying the Tyne chemical works with salt, but is making severe inroads into the ordinary trade of which Cheshire was at one time master. Exports of salt to foreign parts from the northern ports of shipment are now a matter of history, and the coasting trade in fishery salt is becoming every day more and more established. Then again the trade is still developing at Fleetwood, so that the future of the salt industry certainly does not run in a groove centred at Cheshire, and these facts will have to be reckoned with.

And how have the Leblanc soda makers, centred in and around Widnes, taken to the new situation? With praiseworthy energy they have bestirred themselves at once. They know perfectly well that should the efforts of the syndicate prove successful, they will have to pay more for their salt, and a figure nearly double that which they are at present paying has been named as a very probable sum.

The Leblanc alkali makers are organizing a counter-scheme. The chief question to be discussed is the putting down of an experimental boring in Widnes, as it is believed that deposits of salt exist under the town itself. This is surmised from the fact that when some time ago, the Widnes Alkali Co. were sinking a deep well for water, they met with only a weak brine; weak, but yet so strong as to preclude its use for alkali-making purposes, so that this fact is to be followed up and pursued to its legitimate end.

How the Dyestuff Industry in Germany has been Developed.

A few weeks ago the 25th anniversary of the organization of a leading dye-works in Germany was celebrated, and the course of the development of this concern is so closely connected with the advance of the German chemical industry, that *Kuhlow's Review* gives the most important phases in the origin and growth of the business, as follows: At the commencement, the fuchsine factory was erected and brought into working order in March, 1863, with a small steam boiler and an engine of 3 h. p. Five workmen, one clerk, and one chemist formed the staff of the establishment. At the outset matters were by no means favorable, inasmuch as while at the commencement of the erection of the works the price for one lb. of fuchsine stood at 60 mks., when the first invoice was made out on the 27th of March, 1863, the price had fallen to 24 mks. per lb. of fuchsine. As the size of the works proved totally inadequate to meet rapidly increasing requirements, while they were at the same time incapable of being extended, a plot of land was acquired, upon which in 1869 the Aniline Oil Works were erected. The next and larger stride which the Directors of the undertaking resolved upon was the erection of the Alizarine Works. These were erected in 1870 close to the new Aniline Oil Works. After it was found, that gradually the onus of the entire undertaking was being thrown on to the shoulders of the new works, where other departments of manufacture had arisen (for fuchsine, rosaniline blue, methyl green, methyl violet) the entire removal of the business to the new works was resolved upon. During the first period of its existence, fuchsine was manufactured according to the arsenic acid process, Indeed, in 1863 10 to 14 pounds of arsenic were daily produced. In 1867 ten boilers were in operation, while the production amounted to about 350 kegs of fuchsine daily. Since 1871 the works have developed the nitrobenzol process, with which they now exclusively work, by this means obviating entirely the use of the poisonous arsenic acid. The aldehyde green, which the firm have ceased to produce since 1863, contributed sensibly towards its success. The circumstance that the dye could only be furnished in the form of a solution proved somewhat of an impediment to its wide distribution. However, while one day dyeing a glove with a solution of aldehyde green, a chemist noticed the formation of a dark green deposit caused by some tannin matter in the leather. By this means the depositing of the dye by means of tannin was discovered, while simultaneously he determined its solubility in diluted alcohol. Forthwith the manufacture of the aldehyde green tannate was entered upon with the greatest energy. After the discovery and production of artificial alizarine the chemist at the dye-works, at the end of April, 1869, found that anthrachinon with fuming sulphur acid furnishes a sulpho acid, which in the alkali melt produces alizarine. This process, even at the present day forms the basis of the manufacture of alizarine, and in 1869 the production was carried on in the same way, minor improvements being afterwards added. The continually increasing demands upon the production of alizarine necessitated a constant enlargement of the works. To this must be added that fresh industries came into requisition, more especially the manufacture of eosine and malachite green, while more especially (in 1870) the manufacture of naphthol colors (orange, ponceau, amaranth, Bordeaux, etc.), which very shortly afterwards assumed enormous proportions. The immense consumption of auxiliary materials, especially sulphur, hydrochloric and nitric acids, rendered their production on the spot an imperative necessity, thus on this account the acid works were erected in 1880, which in itself is a pattern building. At this period the entire undertaking had attained such an enormous development that it appeared desirable to turn the whole firm into a joint stock company. The ground space of the works consists of an area of 60 hectares, of which 95,000 squares meters are under cover. The number of steam boilers amount to 52, that of the steam moters and gas engines (among which there is one of 30 h.p.) to 92. The collective power of the motors amounts to about 1,840 h. p. In the employ of the works there are 1,800 workmen, 50 foremen, 9 engineers and technical officials, 86 salesmen and 57 chemists. The production of the works in the dye materials has attained simply enormous dimensions. The number of "types" amounts to between 1,700 and 1,800. Again, during last year there were produced and used, 23,108 tons of sulphuric acid of various strengths. There are further manufactured various preparations used in medicine. The dispatch of the products in 1887 necessitated 23,310 casks, 1,962,000 tins, 803,200 bottles and 25,310 cases. Among the principal raw materials there were used 64,230 tons of the products of tar distillation, 2,112 tons of caustic soda, 350 tons of various salts of potash, 1,610 tons of soda, 1,905 tons of saltpeter, 12,661 tons of pyrites, 1,503 tons of iron filings, 80,000 gallons of methylated alcohol and spirit, 1,635 tons of various chemicals, 10,518 tons of rock salt and 4,312 tons of lime. The works are connected by two lines of rails with the railway station. Throughout the entire works a narrow gauge line of rails run, having a collective length of 10 kilos. with 4 locomotives, connecting all the working portions with each other. An engineering works, erected in 1871, supplies as far as practicable, all the necessary apparatus and machinery. The waterworks supply about 800 cubic meters of water per hour, which amount scarcely meets the requirements. The gasworks, built in 1884, are constructed to furnish a daily supply of 12,000 cubic meters of gas. The greater part of the gas is consumed for heating purposes, the smaller, for illuminating. The offices, dining rooms and the rooms in which inflammable materials are treated, are lighted by electricity. The establishment also possesses an excellently organized fire brigade, as well as every modern appliance for extinguishing fire. Of the institutions for the welfare of the dyeworks, we must first and foremost refer to the restaurant. The kitchen is under the direction of a committee selected by the workmen themselves. While the firm adds 10 pfennigs per portion and bears other expenses, every workman is enabled, for 20 pfennigs, to obtain an ample dinner, which contains one-third of a pound of best beef. In order to place articles of food at the disposal of the workpeople at the cheapest possible price, a kind of co-operative society has been arranged among the workmen, the profits of which, at the close of each year, are divided pro rata among them in proportion to their purchases. For foremen and workmen 94 dwellings have, up to the present time, been erected, which are built in blocks of two and four. Further dwellings and a dormitory for younger workmen are in course of erection. The works have well appointed baths and sick rooms. The actual working hours amount to 9½ daily. Overtime is paid for at the rate of 10 per cent. of the day's pay per hour. The average day's pay, with overtime, amounts to 3·10 mks. Most of the officials have residences in the immediate vicinity of the works. The upper rooms of the counting-house building are arranged as a restaurant for the officials. The Pension Fund for officials disposes of a capital exceeding 215,000 mks (£10,750).

Petroleum as a Fuel Oil.*

BY DR. CHARLES B. DUDLEY.

*A lecture delivered before the Franklin Institute.

Undoubtedly almost every one who has thought on the subject at all, has wondered why it is that petroleum has not come into more general use as fuel, and the more we think of the subject abstractly, the more wonderful it seems. Here is a substance which contains no ashes whatever, every portion of which can be burned up to produce heat, and in which from its composition every pound contains more heat-producing power than any other material, which exists in large quantities and over wide areas, with which we are conversant, and with these advantages in its favor, there must certainly be some good reason why oil has not been used more largely as a means of heat generation. If we succeed in what we attempt this evening, we will make the matter clear to you.

But before we take hold of this part of the problem let us examine together some other phases, for besides the real and most important reason, which we will discuss later, why petroleum has not been used for fuel generally up to the present time, there are other reasons which, up to within the last few years, have been very potent in preventing the use of petroleum for fuel. The first of these difficulties is that which we are met with at the outset, namely, how shall we burn petroleum? Coal, wood, lignite, etc., are solids, and to burn them it is only necessary to ignite them on a grate and supply the necessary air to keep up combustion. Oil, on the other hand, is a liquid and will not remain on a grate, so that the first difficulty really to overcome is to devise some method of burning the oil.

Experiments have been made by different inventors, more or less during the last ten or fifteen years, having for their object to devise a successful method of burning oil. Without attempting to give a connected or accurate history of these earlier experiments, it is perhaps sufficient to say that most of the experiments made, until within the last two or three years, attempted to convert the oil into gas or vapor before trying to burn it. In other words, a preliminary treatment of the oil or preparation of the oil was relied on as an essential step in the process. The general result of all these experiments has been that the preliminary treatment method did not prove successful. The generators used to convert the oil into gas or vapor would clog up and the preliminary treatment was expensive. A good many thousand dollars have been expended on these experiments, simply to learn that in order to burn petroleum successfully some method must be devised which takes the oil as it comes. Now, we know that previous preparation is entirely unnecessary, and that petroleum can be burned with perfect success and with almost complete consumption of the oil without any preliminary preparation or treatment.

It is perhaps difficult to say who first struck the essential feature of successful petroleum burning, but it is fairly safe to say that Mr. Thomas Urquhart, of Borisoglebsk, Russia, Locomotive Superintendent of the Grazi-Tsaritzin Railway, made the first successful attempt on a large scale to use petroleum as fuel. Mr. Urquhart is a Scotchman by birth, and has been some nineteen years now in Russia, and when I visited him in October, 1886, he had some 143 locomotives in daily use burning nothing but petroleum, as well as a large number of stationary boilers, pumping engines, machine shop engines, etc. Indeed, the whole Grazi-Tsaritzin Railway uses almost nothing but petroleum for heat generation. The essential features of Mr. Urquhart's system of petroleum burning may be perhaps briefly described as follows: (1) The burner which converts the oil into a spray or very finely divided condition; (2) the location of the burner in such a position in regard to the fire that it never becomes hot, and consequently never clogs; (3) the location within the fire box of a mass of fire brick so arranged to form a combustion chamber and to serve as radiating points for the heat, and also to serve to a certain extent as a storage for heat. The fire brick arrangement still further has the additional advantage of breaking up any particles of oil which escape from the burner unpulverized, so to speak, and also for re-igniting the oil after it has been shut off for any time, as when stopping at stations.

Let us examine these three features a little in detail by means of the diagrams on the screen, here shown in Figs. 1, 2, 3, 4 and 5.

(1) The burner. It will be observed that the burner is essentially two tubes. The inside one of these tubes carries steam taken from the boiler. The outside one carries oil taken from the reservoir on the tank. The burner is located as seen in Fig. 2, well down in the back leg of the fire box just above the ash pan. A thimble H, shown in Fig. 1, through the back leg of the fire box forms the communication between and the inside of the fire box. The burner is supported on the back fire box sheet by bolts, and stands about an inch away from this sheet. As will be observed, the inside tube, which carries the steam, forms a fit against the inside of the outside tube, and prevents the oil from passing through what may be called the combining tube, until it is desired to have it to do so. The worm gear on the back end of the burner, which is operated from the cab, serves to withdraw the inside tube and allow the oil to pass.

The operation of the burner is as follows: The cock on the pipe connecting the boiler to the inside tube being open to pretty nearly its full extent, steam enters the annular recess, *c c*, and from it through the holes, *d d*, passes through the inside tube *T* and rushes into the fire box. Now, by operating the worm gear by the hand wheel, as shown in Fig. 5, this inside tube is drawn back and the oil allowed to flow in. When it reaches the end of the inside tube it is caught by the steam and practically atomized, or converted into a fine state of division, the mixed spray. so to speak, being projected into the fire box, as shown in Fig. 2. A bit of ignited oily waste on the end of a rod being stuck down through what was originally the fire door. and which has been closed up with brick work, except a small hole, ignites the stream of atomized particles and the heat generation begins. As will be observed, the burner is exceedingly simple in construction. It takes the oil just as it receives it and projects it into the fire box in condition to be rapidly and completely consumed.

(2) The location of the burner. It will be observed that the nose of the burner does not reach into the fire box. It is about an inch or so back in the thimble from the fire box side, and in this condition never gets hot enough to decompose the oil, consequently no carbon is ever deposited and the burner never clogs.

(3) The fire brick arrangement. The fire brick arrangement may, perhaps, best be described as a sort of a bonnet, with the open end of the bonnet toward the rear end of the fire box. The bottom is more or less open for admission of air. The back of the bonnet serves, as has already been stated, to receive any drops of oil that may escape being atomized in the burner and breaks them up by the rebound in condition to be burned. The bonnet itself is a sort of combustion chamber. After a good deal of experimentation, two methods of admitting the air were decided upon, both of which gave excellent results. These two methods are shown in Figs. 2 and 3. In Fig. 2 the air is taken in both front and rear. In Fig. 3 the air is taken in at the rear and the sides. Very little difference is noticeable in these two methods. Some forms of locomotive construction lend themselves better to one and some to the other. The small ledge shown just inside the fire box, near the end of the burner, prevents dropping down of the oil and also serves as a help in maintaining combustion. Fig. 5 shows the general arrangement on a passenger engine on the Grazi-Tsaritzin Railway.

With above description and cuts it is perhaps not difficult to see why this method of burning petroleum has proved to be a success. The difficulties experienced by the early experimenters in breaking up the oil into vapor or gas do not occur with this method. The oil is burned just as it is supplied to the locomotive, with no other preparation than converting it into a finely-divided state. The burner is so located that it cannot clog, and if perhaps a stick or bit of dirt gets in the passage between the inner or outer tubes, it is only necessary to draw the inner tube back a little further, and allow it to pass into the fire-box along with a douce of oil, which produces no results other than a momentary out-puff of black smoke from the smoke stack. As has already been described, like-wise the brick-work, which in operation becomes actually white hot, serves a very important purpose in this scheme, and although it cannot be regarded as absolutely essential, since there are systems of burning petroleum in successful use which do without the brick-work. it is unquestioned that much more uniform and reliable results are obtained with the brick work than without it. The brick work, well put up of good fire brick will last from six to eight months, but poor brick will not stand the intense heat.

It will be noticed that steam pressure has been previously described as essential in starting the fire. Air pressure may, of course, be used in place of steam, both in working the locomotive continuously and in starting up, and a number of experiments have been made with air to determine which was the more economical. No special advantages in favor of air have thus far been shown. When a locomotive is cold, it is customary on the Grazi-Tsaritzin Railway either to connect with the burner, by appliances for the purpose, a shifting engine already in steam, or when the engine is in the round house, connection is made with appliances arranged for the purpose from a stationary boiler. It takes from fifteen to twenty-five minutes with a cold engine to get up thirty to forty pounds pressure in a locomotive boiler, and when this pressure is obtained, the engine will take care of itself.

There are two other systems of burning petroleum, one of which at least is in quite general use in southeastern Russia, namely the Lentz system. This system is used a good deal on the Volga steamers. It depends for its success apparently on the same principles that have already been described, namely, it covers the oil into a finely divided state by means of steam, and burns this mixture of spray and steam. We believe there is no brick work required, the material being simply projected into the fire box. In this country, the Edwards oil burner has been used with considerable success, and this likewise converts the oil into a spray, doing it in a little different way, how-

ever than the method used by Mr. Urquhart. We have seen likewise simply two pieces of tube, one inside the other, and with the control of the steam and oil by means of globe valves, the mixed steam and oil being simply projected into an ordinary fire box. This is used on stationary boilers.

In the winter and spring of 1886 and 1887, experiments with the Urquhart system of burning petroleum was tried on the Pennsylvania Railroad. The devices used were practically the same as those used by Mr. Urquhart, but some little modification was needed. Locomotives in America are worked much harder than they are in Russia, and it was found essential to enlarge the burner a little, also, the space for taking in air was found to be insufficient to prevent smoking, and the appliances for controlling the feed, which are operated from the cab, do not give quite as rapid movement as was deemed essential with the harder working engines of the Pennsylvania Railroad. The arrangements made use of on the Pennsylvania Railroad are shown in *Fig.* 4, which as will be observed, are the same in principle, but with the modifications already described. *W*, is a fire brick wall at the front end of the fire box, with sides *S*, and an arch *R* on top. The air was taken in at the front and rear, the middle partition shown in *Fig.* 2, being completely dispensed with,so as to allow the amount of air necessary to consume the oil. In place of the worm gear, likewise, for controlling the feed, a bevel gear acting more rapidly was used.

A single burner of the kind already described has been found to be abuudantly sufficient to furnish all the steam required by an ordinary locomotive. The firing on oil burning locomotives is simply ideal. The firemen sits on his box, or, as in Russin, stands at the wheel, with his attention fixed on the steam gauge and the smoke stack. He catches a glimpse of black smoke at the smoke stack; a slight turn of the wheel diminishes the supply of oil and the smoke disappears. The engineer shuts off steam on arriving at a station. Instantly the supply of oil is shut off and the steam gauge scarcely changes a point. There is the most perfect relation between the violence of the exhaust, which means the amount of air pulled through the fire-box, and the supply of oil furnished. So perfect is this adjustment that it is not at all rare to see an engine, in which everything is working with perfect satisfaction, begin to smoke from a slight change in the relations between the exhaust and the supply of oil. So slight a change as the movement of the reverse lever one notch, which means a little less steam going through the exhaust, which means a little less violent draught, which likewise means a little less air drawn into the fire-box, will cause smoke to appear at the smoke stack. Of course this is entirely under control, and it is the fireman's duty to see that the steam pressure is kept up without smoke. Mr. Urquhart instructs his engineers to run on what he calls the "gray smoke," so as to be sure he is not drawing an excess of cold air through his fire box. The gray smoke may be best described as the small line left after the steam has disappeared to mark the passage of a train on a clear day. Only those who are accustomed to it can detect the little smoke in the presence of the steam as it leaves the smoke stack. The comfort to the passengers by the use of this magnificent combustible for generating steam, can hardly be described. Not a cinder or a trace of smoke ever tisturbs them. Windows can be left wide open, so far as the locomotive is concerned.

It is, perhaps, entirely safe to say, in view of what is actually being done, both on the Grazi-Tsaritzin Railway, on the Volga steamers and on the Trans-Caucasian Railroad in Russia, and also the experiments that have been made in this country to a greater or less extent, and in view of the description given above, that oil burning, so far as it depends on a method of doing the burning, is a success, and that this part of the problem is solved. Let us now turn our attention to some other phases of the problem. The practical part of the problem is solved: the how-to-do-it is clear; the problem that remains is, can oil be burned as a means of generating heat with economy?

This problem may be approached in several ways. Let us look at it by comparing oil with coal. The following table shows the relative heat producing power of coal and oil. In this table, the following assumptions are made, A pound of anthracite coal is supposed to contain ninety per cent. carbon. A pound of bituminous coal contains eighty-five per cent. carbon and five per cent. hydrogen. A pound of oil contains eighty-six per cent. carbon and fourteen per cent. hydrogen, and the heat producing power of the carbon and hydrogen in the theoretical part of the table are calculated by means of the well known heat units of these two substances.

RELATIVE HEAT-PRODUCING POWER OF COAL AND OIL.

	Pounds oil.	Pounds coal.
Theoretical anthracite	1	1·61
" bituminous	1	1·37
Urquhart's experiments	1	1·756
Peninsular Car Company	1	1·742
Elevated railroad, New York	1	1·785

It will be observed that Mr. Urquhart's experiments, which we may say are the result o a year's experience with the same 140 locomotives using coal and using oil, show that a pound of oil will generate as much heat as one and three-fourths pounds of coal. The experiments at the Peninsular Car Company, at Detroit, Mich., were made with Canadian petroleum in October, 1885, and show, as is observed, a very close agreement with Mr. Urquhart's figure. The experiments made on the elevated railroad in New York, were made during the summer of 1887. It is very interesting to note that experiments made in different countries, at different times and by different experimenters, should show so close a relation in the amount of heat producing power of coal and oil, and it is perhaps safe to say in general, which is the figure that Mr. Urquhart uses mostly, that a pound of oil is as good for producing heat as one and three-fourths pounds of coal.

The ratio of coal to oil having been obtained, we are in condition to begin to study the financial part of the problem, and it is clear that thus far the oil has the advantage, for every pound of it is as good as one and three-fourths pounds of coal. However, oil is usually bought by the gallon or barrel, while coal is dealt in by the pound or ton. It is plain, therefore, that in order to get a figure representing the cost of doing a certain amount of work, either by coal or by oil, we need to bring these measures together. Assuming, therefore, that a barrel of oil contains forty-two gallons that a gallon of oil weighs 7·3 pounds, and that 2,000 pounds is a ton of coal, we have the two following formulæ, which will enable us to compute either the price that we can afford to pay for oil per barrel, if we know the price of coal per ton, or the price of coal per ton to be equivalent to oil at a given price per barrel:

$$\frac{\text{2,000 multiplied by the price of oil per bbl.}}{\text{Weight of oil per gal. x by no. gals. in bbl. x by ratio oil to coal}} = \text{Equivalent price of coal per ton.}$$

$$\text{Weight of oil per gal. x by no. gls. per bbl. x by ratio of oil to coal x price of coal per ton} = \text{Equivalent price of oil per bbl.}$$

By the use of these formulæ,the following tables have been calculated. And here it should be stated, that in actual practice it is found that there are certain economies where oil is used in addition to the economies in fuel account, notably saving in the cost of handling fuel and ashes, and economies in repairs to locomotives, especially fire box repairs. This gives us two tables, one in which fuel account alone is considered, and the other in which all the ascertained economies are considered. As will be described in detail later, there are certain chances for economy in burning oil that do not occur with coal. Of these there have been pretty well worked out, as just stated, economy in handling fuel and ashes, and economy in repairs to locomotives. The amount of these has been obtained in dollars and cents and is, perhaps, best expressed by saying that, taking all ascertained oconomies into account, a pound of petroleum is as good as two pounds of coal.

RELATIVE VALUE OF COAL AND OIL, FUEL ACCOUNT ALONE CONSIDERED.

Oil per barrel at	Coal per ton at
$0 20	$0 74
30	1 12
40	1 49
50	1 86
60	2 24
70	2 61
80	2 98
90	3 35
1 00	3 73
1 10	4 10
1 20	4 47
1 30	4 85
1 40	5 22
1 50	5 59
1 60	5 97
1 70	6 34
1 80	6 71
1 90	7 08
2 00	7 45

RELATIVE VALUE OF COAL AND OIL, ALL ASCERTAINED ECONOMIES CONSIDERED.

Oil per barrel at	Coal per ton at
$0 20	$0 65
30	98
40	1 30
50	1 63
60	1 96
70	2 28
80	2 61
90	2 93
1 00	3 26
1 10	3 59
1 20	3 91
1 30	4 24
1 40	4 56
1 50	4 89
1 60	5 22
1 70	5 54
1 80	5 87
1 90	6 19
2 00	6 52

It should be remembered in making all calculations as to the relative cost of coal and oil for heat production, the two must be taken in the same situation. It would be obviously incorrect to take the price of oil as quoted in the daily papers, which means the oil in the pipe lines or in the storage tanks in the oil regions, and compare it with coal in Philadelphia, which has already been transported from the coal regions to this point. The two must be compared in the same situation, and if the ratio of one pound of oil equals two pounds of coal is considered, the prices must be compared with the fuel ready for use, either on the locomotive tender, or in the tank at the stationary boiler. The formulæ and the tables will enable everyone to make the comparison for themseves for their own locality. It will perhaps be somewhat surprising to those who have not made some calculations on this subject, to note that oil at three cents per gallon is considerably over $4 per ton for coal, and also to know that at present prices even crude oil at Philadelphia is difficult to be had at three cents per gallon.

Allusion has already been made to certain advantages which oil has over coal as fuel. Among these advantages the following may be enumerated:

1. Less waste of fuel. Upon this point it should be stated that it seems probable that, with ordinarily constructed locomotives, working pretty hard and using a violent exhaust, at least as high as fifteen per cent. and possibly even twenty-five per cent. escapes combustion. There are three ways in which the fuel can escape. First, smoke and unburned gases which go out the smoke stack; second, cinders which go out the smoke stack; and, third, fuel which escapes through the grate. With oil, however, it is believed that combustion is practically complete. As said above, in oil burning a slight gray smoke is allowed to escape in practice, and it is also possible that some of the gases may escape unburned, but the loss is believed to be very much less than with coal.
2. Economy in handling fuel.
3. Economy in handling ashes.
4. Diminished repairs to locomotives.

These three advantages have already been mentioned, and their money value has been obtained by experiment.

5. Economy in cleaning engines. The absence of smoke and cinders around the locomotive when using oil is the source of this economy.

6. Less waste of steam at the safety valve. It is obvious that all the steam which goes out the safety valve simply means so much fuel gone to waste, and until recently we have never known of any positive information showing how much this loss was. During the experiments made with oil on the elevated railroad in New York, it was found that it took twenty-five per cent more water to do the same work with coal than with oil, and the explanation of this was the waste of water in the form of steam at the safety valve. This loss on the elevated railroad is, of course, much higher than in ordinary locomotive practice, owing to the fact that the steam pressure must be kept as high as possible, that an anthracite fire is a difficult thing to control, and that frequent stops must be made. It is probable, however, that in ordinary locomotive practice the waste of steam at the safety-valve may be as high as five per cent. and possibly more. With oil as fuel, it is possible to work for days without raising the safety-valve. During nearly a week's daily riding on the locomotives in Russia on the Grazi-Tsaritzin Railway, I only saw the safety-valve lifted once, and with proper care on the part of the fireman, there is no need of any waste of steam at the safety-valve.

7. Economy in cleaning ballast. The cinders which are thrown out of the smoke-stack in coal-burning locomotives are a loss, not only because they are not burned, but because they fall on the track and choke up the ballast, especially where stone ballast is used. This choking of the ballast interferes with the drainage, and the result is every year thousands of dollars have to be spent in cleaning the cinders out of the ballast. It is difficult to say how much of a saving would be effected if oil alone was used, with consequently no cinders, but it is safe to say that it would amount to a good many thousand dollars on stone-ballast roads in a year.

8. Economy of space in carrying and stowing fuel. A pound of oil does not occupy as much space as a pound of coal, and consequently a sufficient amount of oil to furnish a certain amount of heat could be carried in a smaller space than coal, This is of great importance on steamers, and of course not of relatively so great importance in locomotive practice.

9. No fires from sparks. Oil burning being practically free from smoke and cinders, there are no buildings or other property destroyed along the track. How serious a difficulty this is with coal burning roads it would take an examination of the damage account to show, but it is safe to say that it is not small.

10. No smoke and cinders. It is difficult to put into money the advantages arising from the absence of smoke and cinders, but we will venture the assertion that the railroad that firsts adopts oil will distance its competitors in its passenger traffic, owing to the absence of smoke and cinders.

11. Possibility of utilizing more of the heat. It may be, perhaps, not generally known that the size of the flues in an ordinary locomotive are decided upon by the ability of being able to keep them from becoming choked up with cinders. A small flue is readily choked with cinders in coal burning locomotives. On the other hand the smaller the flue the more heating surface it is possible to obtain in the boiler, and the greater relative advantage is obtained from the fuel actually burned. If locomotives were constructed for oil burning it would probably be easy to use flues one inch in diameter, instead of one and three-fourths or two inches as at present, with consequent ability to utilize more of the heat generated than is now done.

One or two points further very briefly. What kind of oil should be used? There are three reasons why crude oil should not be used, especially on locomotives, namely, it is more dangerous, it has an exceedingly unpleasant odor, and it is not so economical. As is well known, crude oil contains more or less gaseous matter, and also vaporizes quite readily. With the necessary use of lanterns and open lights around locomotives, there would consequently be more or less danger of explosions. Furthermore, in case of a wreck if the oil tank was ruptured it would be almost impossible to prevent a fire. The odor of the crude oil need not be specially mentioned, further than to say that it would certainly be extremely unpleasant to ride behind a locomotive fed with Lima crude oil. The reason why crude oil is not so economical as reduced oil is because oil is usually sold by volume, and a gallon of crude oil instead of weighing, as we have assumed. 7·3 pounds, weighs about from six and one-fourth to six and one-half pounds, and as the heat is directly in proportion to the weight of the combustible, it is plain that a barrel of crude oil will not give as much heat as a barrel of reduced oil. The oil which is now used on the Grazi-Tsaritzin Railway, and which is believed to be safe to use, is an oil not below 300° fire test. It is fair to add that crude oil can be used on stationary boilers where it is kept in tanks and brought to the boiler in pipes.

The formulæ given above, and the tables, or rather the figures, which result from the comparison of the value of coal and oil in dollars and cents, go far toward explaining why petroleum has not as yet been used to a very much greater extent as a means of heat production, namely, in this country, and at the present time it is really more expensive to obtain the same amount of heat from oil than it is from coal. In the experiments already alluded to on the Pennsylvania Railroad, it was actually found, with oil at thirty cents per barrel, that it cost nearly fifty per cent more to take the same train of cars 100 miles by means of oil than by means of coal. Another very potent reason why oil has not and cannot, as we look at it, be generally used for fuel, is found in the following: The total coal consumption of the Pennsylvania railroad, including all its ramifications, is about 8,000 tons per day. If, now, this fuel consumption was changed from coal to oil, the Pennsylvania Railroad alone would use over 26,000 barrels of oil per day, and this 26,000 barrels is over one-third, and at present nearly one-half, of the daily oil production of the United States, so that lack of supply in this country, at least, will, for a long time to come, prevent the use of oil in anything more than a very limited way. In Russia no difficulty of this kind occurs, and for two reasons. First, because the oil supply is enormously greater than it is here. While I was in Russia it was credibly stated that a new well had been struck which actually flowed more per day than the total daily production of the United States. The second reason is that the nature of the Russian petroleum is entirely different from American. With the largest portion of American petroleum, seventy-five per cent. is capable of being made into refined oil, leaving twenty-five per cent. of residues. In Russia the figures are exactly reversed; twenty-five per cent. only is made into refined oil, and seventy-five per cent. is residues, and these residues are what is burned. They have a fire test of about 330° to 340°, and look and, in truth, are very much like our ordinary reduced petroleum, known in market as "well oil," and used for lubrication.

The difficulty in regard to burning oil successfully has been overcome. Two other powerful difficulties still remain—increased cost for the same amount of heat, and limited supply, and it is for the future to determine whether either of these difficulties can be overcome.

As to the possibilities of the future it is difficult to say a great deal, but there certainly is very little hope for fuel oil as long as efforts are made to diminish production. It is possible, however, we think, that with present production, a limited amount of, say, 10,000 or 15,000 barrels per day of oil might be used to advantage as fuel, but it would probably require changes in the method of distillation with the idea in mind of making a fuel oil, and possible changes in the method of utilizing the heat generated, as has already been described, to get economy even in this limited way. There is also the rather paradoxical statement that those points farthest away from the oil fields can probably use oil to advantage, when it could not be used to advantage in the oil field itself. This is due to the fact that the same heat producing power weighs less with oil than with coal, and consequently the freight, which is an important element always in the cost of fuel, would be in favor of the oil. In our judgment the future of fuel oil in this country, and until some other very much greater sources of supply are discovered, is in the hands of refiners. By shaping the distillation in such a way as to produce a fuel oil at low figures, it can be burned, otherwise not.—*Jour. Franklin Institute.*

DYE MARKET

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Aug. 14, 1888.

Taken as a whole, there has been a slight improvement shown, as regards trading in the market for dyes and dyestuffs. In some of the articles an increased demand has been felt, while others have remained quiet and unchanged; but striking an average, dealers seem better pleased with the outlook, and also with the present state of the market. There have been few changes in quotations, but on some of the articles the feeling has been considerably firmer. Albumen is, for the most part, unchanged. There have been some large purchases made which are expected to go to print works, The market is quoted firm, with a tendency toward higher prices, while stocks are reported as quite low. Quotations rule at 15@16c for domestic blood. Imported continues to rule at 16@16½c, with a moderate demand noted. Egg is quoted firm at 60@65c, with the trading characterized as fairly active.

Aniline colors.—Dealers report a slight increase in the trading, at prices which are considered rock bottom, and all look for a better tone as regards values. The market is quoted steady, with former figures ruling,

Alizarine has sold to a moderate extent, but a slight improvement over last week can be noted, and a still further increase is looked for during the coming week. Quotations are quoted steady at 17½@20½c as to brand and quantity.

Bichromate of potash.—The demand has been rather irregular during the interval since we last wrote, but taken altogether, is fairly good, considering the season. Previous figures continue to rule at 10½c for 5 cask lots or over, with a higher figure named on smaller lots. Bichromate of soda has continued featureless and in moderate demand, the quotation for lots of 5 casks or over still being 8½c.

Cochineal has not been inquired for, and dealers quote the market as "dead." Quotations are nominally as follows: 30c. for Teneriffe silver, 29@30c for black, and 33c for gray black.

Cutch, while continuing firm in tone, has not been specially active, and the market is not changed in any particular from last week, There have been sales in a jobbing way at quotations, but this has constituted the business doing. Spot stocks are quoted at 6¼@6½c, while to arrive the range is from 6@6¼c. These figures are for Diamond S. M. There is said to be only a limited quantity of star "B" available, and the same is said to be held in Boston at 6½c.

Divi Divi has continued featureless. There is said to be a lot offering in the market, at figures in the neighborhood of $55, but we can learn of no transactions except in a small way, at previous figures, which were $55@65, as to quantity and quality.

Dyewoods—But little can be said in reference to the market for stick wood that has not been told before. We hear that cables have received to the effect that "the revolution extending over the entire island of Hayti," and also later ones, "that in all probability the revolution will be a success." By some it is thought this will have a considerable effect on the market, while others scout the idea and assert that only in the case of owners of vessels refusing to allow their boats to go to the island, will the matter at all disturb the market. One cargo of Gonaives wood which was offered, to arrive, found no takers and has been sent east. The stock here has not been increased, and as far as can be learned there have been no sales of supplies on dock. On extracts no change can be noted. Trading has been going on in a quiet way, with quotations at the following rates: For 51° extract, 6½@6¾c is quoted, with 42° at 5¼@5½c. Imported 51° continues to rule at 10c., fustic at 7½@9½c for 51° according to quality. Solid logwood is held at 10¼@11½c. Sumac is quotable at 3¼@3¾c for domestic liquid 51° for imported the prices are very much unsettled and in buyers' favor. Hypernic at 12½@14c for 51° and 20@24c for solid.

Gambier—The limited stock has been augmented by two arrivals, namely, the "Tower Hill," with 800 bales, and the "Helvetia," with 350 bales. All of which was sold to arrive, with the exception of 200 bales on the former vessel, which are now held at 7c. The market is still strong, and the feeling is perceptible away up to December. For supplies on vessels now due 6¾c is asked. Sales aggregating 500 bales are reported on vessels near by. For supplies further off 5 25@5¾c. are the quotations.

Indigo—Both Guatamalas and Bengals have ruled quiet, and the business has been on the small jobbing order. No features can be noted. Quotations are unchanged at 75@80c for Guatemalas, while Bengals rule at the following rates: 85c@$1 for low grades, $1 10@1 25 for medium, and $1 25@1 40 for fine. Madras continues rather quiet at 35@55c.

Nutgalls.—China galls are reported somewhat stronger and the market is in a better condition than has been the case for some little time. Out of a shipment, which is near by, of 100 cases, sales of 50 cases have been made, and there have also been sales on spot to a fair extent. Quotations are 15@16c. Aleppos are also quoted firm. but are not specially active, while values rule at 14¾@15c.

Prussiate of potash—Yellow has continued in moderate demand, but we are unable to report any feature of interest, while quotations rule at 19c, the same being identical with last week. Red has ruled quiet at 45c.

Sumac.—Further advices have been received from Palermo, and we give them in our editorial columns. A slight improvement in the demand is reported, and the week has been a very fair one. The sales, however, have been for the most part of a jobbing character.

Old figures continue to rule. Virginia has sold in jobbing quantities at previous figures.

Tin Crystals have sold moderately well, but no special business can be noted. Supplies may be obtained at the following figures: In bbls., 16@18c, and in kegs, 16¼@20c.

RECENT PATENTS.

386,590. APPARATUS FOR SETTING AND LAYING GLUE. Filed July 29, 1887. Issued July 24, 1888.

Claim.—1. In an apparatus for manipulating glue, the combination of a continuously-moving mold, a supply pipe for delivering glue to the same, and a reciprocating knife mounted on the supporting frame across the pan for cutting the glue into strips, substantially as and for the purpose set forth.

2. In an apparatus for manipulating glue the combination of an annular trough, means for supplying the same with water, and an annular congealing pan supported within said trough, substantially as and for the purpose set forth.

3. In apparatus for manipulating glue or like substances, the combination of a continuously moving congealing pan, a knife mounted on the supporting frame for cutting the congealed glue into strips in the pan, and a stripper in the rear of said knife for stripping said strips from the pan, substantially as and for the purpose set forth.

4. In apparatus for manipulating glue and like substances, the combination of a continuously moving congealing pan, a cooling trough in which the same travels, a stripper for stripping the congealed glue from the pan, and a conveyer back of said stripper for conveying the strips away from the pan, substantially as and for the purpose set forth.

5. In apparatus for manipulating glue, the combination of a continuously moving congealing pan or mold, a stripper for stripping the glue from the pan, a conveyer back of said stripper, and a continuously moving table under the end of the conveyor for the support of the drying frame, substantially as and for the purpose set forth.

6. In apparatus for manipulating glue, the combination, with an annular trough, of means for supplying the same with a continuous current of water, with an annular rotating congealing pan supported by a vertical shaft in said trough, substantially as and for the purpose set forth.

7. In apparatus for manipulating glue or like substances, the combination of a continuously moving mold or pan, a cooling trough in which the same travels, and a stripper for stripping the congealed glue from the pan and conveying it away, substantially as and for the purpose set forth.

8. In an apparatus for manipulating glue, the combination of the water trough, congealing pan, rotating in said trough, a stripper, held down against the surface of said pan, and a conveying table, in the rear of said stripper for conveying the material away, substantially as and for the purpose set forth.

9. In the apparatus for manipulating glue, the combination of a water trough, the congealing pan, rotating in said trough, a knife, supported by said trough, a stripper, held down against the surface of said pan in the rear of said knife, and a conveying table, in the rear of said stripper for conveying away the material, substantially as and for the purpose set forth.

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